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# Promoting Healthy Body Image in College Men: An Evaluation of a Psychoeducation Program

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PROMOTING HEALTHY BODY IMAGE IN COLLEGE MEN:  
AN EVALUATION OF A PSYCHOEDUCATION PROGRAM

by

Justin D. Henderson

A DISSERTATION

Presented to the Faculty of  
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In Partial Fulfillment of Requirement  
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(Counseling Psychology)

Under the Supervision of Professor Michael J. Scheel

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PROMOTING HEALTHY BODY IMAGE IN COLLEGE MEN:  
AN EVALUATION OF A PSYCHOEDUCATION PROGRAM

Justin D. Henderson, Ph.D.

University of Nebraska, 2012

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Current psychological research indicates that men are increasingly dissatisfied with their bodies (e.g., McCabe & Ricciardelli 2004; Olivardia, Pope, Borowiecki, & Cohane, 2004). The consequences of body image concerns range from mild discontent (e.g., body dissatisfaction) to the more pathological (e.g., muscle dysmorphic disorder, steroid use, and eating disorders). College-age men are at particular risk of body image disturbances. Drawing from body image research and theory, a one session prevention intervention was designed for college men to address this growing concern. The prevention intervention was intended to serve as a preliminary step into men's body image prevention programming. The intervention was implemented within a large Midwestern university setting and was evaluated using a randomized control design. A mixed factorial analysis was used to determine what effect the program had on improving body image attitudes, self-objectification, and psychological distress. Results from the study indicated that the prevention intervention was effective at improving global body image attitudes, muscle satisfaction, and increasing media skepticism. Additionally, participants in the intervention exhibited a reduction in the internalization of the muscular-lean ideal, the athletic ideal, self-objectification, and general psychological distress at post-intervention. The intervention, however, did not influence men's attitudes about body fat or felt pressure from society to have the lean-muscular ideal. The

implications and limitations of the study are presented as well as directions for future research.

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## CHAPTER 1

### INTRODUCTION TO THE STUDY

Body image dissatisfaction has traditionally been thought to be a “woman’s problem” (Pope, Phillips, & Olivardia, 2000). As a result men often have been ignored in psychological research on body image problems. Despite this oversight, growing evidence suggests that men also suffer body image concerns and such concerns are on the rise (e.g., Thompson & Cafri, 2007; Pope et al., 2000). In a 1972 survey of men and women 15% of men reported being dissatisfied with their bodies. A similar survey conducted in 1997 revealed that 43% of men were dissatisfied with their bodies in some manner. Other studies have found alarming rates of dissatisfaction among men. Mishkind, Rodin, Silberstein, & Striengel-Moore (1986) found that 95% of college men experienced some dissatisfaction with their bodies. A study that compared college men’s and women’s body image showed they were equally dissatisfied with their bodies (Olivardia, Pope, Mangweth, & Hudson, 1995).

Only within the past decade has substantial attention been paid to the body image disturbances of men (Cafri, Thompson, Ricciardelli, McCabe, Smolak, & Yesalis, 2005). Preliminary findings suggested that the body ideals that men and women construct differ in terms of body shape and composition (e.g, Mishkin et al., 1986; Olivardia, Pope, Borowiecki, & Cohane, 2004). The cultural body ideal of women as portrayed in the media is often thin and toned. Men, however, most often report a body ideal that is more muscular while remaining lean. Muscularity, in particular, is a source of much dissatisfaction among many contemporary young men. Lynch and Zellner (1999) found that 84% of college men indicated their current bodies were less muscular than what they

would like to acquire. Olivardia, Pope, Borowiecki, and Cohane (2004) found that the average body ideal for college men had 25 pounds more muscle and 8 pounds less body fat than their current body composition. This dramatic discrepancy between current body composition and body ideal composition is thought to be one of the contributing factors to body dissatisfaction in men (Olivardia et al., 2004).

The possible psychological and behavioral consequences of male body image disturbances include: body shape/size/weight concerns, eating disorders, compulsive exercising, body dysmorphic disorder (i.e., muscle dysmorphia), low self-esteem, depression, appearance obsession, use of cosmetic surgery, anabolic steroid use, as well as poor or dangerous nutrition practices. Along with these various psychological and behavioral dysfunctions is the growing amount of general dissatisfaction men have with their bodies. Some have come to term such phenomena as *normative muscular dissatisfaction* (Pope et al., 2000).

Research has suggested that sociocultural forces have been one of the primary reasons for the increases in men's body dissatisfaction. Certainly male body objectification in the media has increased over the course of thirty years (Barlett, Vowels, & Saucier, 2008; Leit, Pope, & Gray, 1999; Rohlinger, 2002). Moreover, social pressures and internalization of cultural ideals have been shown to be a contributing factor for eating disorder and body dysmorphic pathologies in both men and women (e.g., Irving, DuPen, & Berel, 1998; Smolak, Murnen, & Thompson, 2005). Body image prevention programs have often focused on helping girls and women resist the sociocultural pressures to thinness (e.g., Irving et al., 1998, Yager & O'Dea, 2008). Such programming is needed for college men.

### **Statement of the Problem**

The initial investment of prevention programming has the potential to pay dividends by reducing the prevalence of eating disorders and other body image disturbances. Prevention programming, however, requires energy and economic resources. Therefore, prevention programs must demonstrate effectiveness at reducing those risk factors associated with body image concerns (Levine & Smolak, 2006).

To this researcher's knowledge, there have been no studies on the effectiveness of body image prevention programs exclusively for college-aged men. Moreover, this researcher was also unable to locate any documentation of body image prevention programming designed specifically to men's body image concerns. College men, in particular, represent an important target for intervention (Ridgeway & Tylka, 2005). Research indicates the majority of college men endorse some form of body dissatisfaction, are often concerned about their appearance, and exhibit a high drive for muscularity (e.g., Grogan & Richards, 2002; Gray & Ginsberg, 2007; Lynch and Zellner, 1999). Therefore, the development, implementation, and evaluation of prevention interventions on college campuses are needed.

Early stages of research on prevention interventions for adolescent males (i.e., middle school and high school students) have emerged. These studies indicate promising results with increases in positive body image attitudes among boys post-intervention (e.g., Stanford & McCabe, 2005). Stanford and McCabe (2005) implemented and evaluated a middle school prevention program for adolescent males. Their psychoeducational program showed an increase in muscle satisfaction, increase in self-esteem, and a reduction in negative affect in participants who participated in the

intervention. McCabe, Ricciardelli, and Karantzas (2010) evaluated a body image program for middle school males. Their prevention program, however, did not display any significant differences in body image dissatisfaction or self-esteem between treatment and control groups. The authors, however, did find that those participants who were most dissatisfied with their bodies were significantly more satisfied with their bodies at the end of the program. The authors also suggested that prevention programs targeting older adolescent boys and young men may be more effective given the salience of body image issue during these stages of development (McCabe, Ricciardelli & Karantzas, 2010). While these two studies represent the frontier in men's body image prevention research, more empirical support is needed in support of boy's and men's body image prevention.

When college men are included in body image prevention programs, they are often auxiliary participants in programming designed more specifically for women's body image concerns. For example, one program included college-aged men in an eating disorder prevention program designed primarily for women and emphasized resisting the drive for thinness and provided education about eating disorders (Rabak-Wagener, Eickhoff-Shemek, & Kelly-Vance, 1998). They found no significant changes in body image attitudes in the men who participated. Since men endorse a drive for thinness significantly less than women, the target of these interventions may not address the concerns of most men resulting in no measurable change in body image concerns (Cohane & Pope, 2001; Smolak, Murenen, & Thompson, 2005). Psychoeducational approaches, therefore, need to be specifically modified for the body image concerns of boys and men (Winzelberg, Abascal, Taylor, 2002).

Despite the dearth of research within men's body image prevention, important lessons can be learned from the feminist movement and women's eating disorders prevention. The changing female beauty ideals of the 20<sup>th</sup> century surely influenced the desire for thinness in women and subsequently an increase in eating disorder pathology (Seid, 1994). Prevention efforts for women were not adequately addressed until the late 1980's and early 1990's well after widespread normative body image concerns were recorded (Seid, 1994; Striegel-Moore & Steiner-Adair, 1998). Similarly, a cultural riptide is transforming the gender roles and beauty ideals of men (e.g., Luciano, 2001; Pope et al., 2000). Therefore, efforts should be made to thwart off psychological distress caused by body image concerns earlier rather than later. Men's body image prevention and outreach is important because men are less likely to seek out professional help particularly for body image concerns (Addis & Mahalik, 2003; Andersen et al., 2000; Pope, Phillips, & Olivardia, 2000).

To address the growing concern of men's body image concerns, this researcher developed a university psychoeducational/media literacy outreach program. The program was developed to disseminate accurate information about men's body image issues, to challenge sociocultural notions of male beauty, to encourage critical media consumption, and to provide information about risky health behaviors such as steroid use and excessive exercising. The prevention program was informed by sociocultural, social comparison, and gender theories of body image. Sociocultural theory purports that cultural standards of beauty and attractiveness are the main contributors to body image disturbances (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). American conceptions of male attractiveness have increasingly emphasized a muscular and lean body that is often out of

the reach of average men (Luciano, 2001). Feminist psychologists have long held that the disorders of body image are a symptom of larger sociocultural ills than individual psychopathology (Steiner-Adair, 1994). Feminist prevention programs, thus, deliberately call into question the cultural values, images, and “norms” about adult womanhood and manhood (e.g., Kilborne, 1994; Shisslak & Crago, 1994; Steiner-Adair, 1994). The prevention intervention thus takes a critical perspective about the overemphasis on hypermesomorphic body ideals as a representation of legitimate masculinity in American culture.

Prevention interventions also carry the responsibility of displaying empirical support of the intervention’s ability to improve body image attitudes and behaviors in participants (Levine, Piran, & Stoddard, 1999). In order to determine effective strategies to utilize with men, an empirically derived research lineage needs to be established in the field. This study evaluated the effectiveness of the prevention intervention at improving body image attitudes, improving media literacy skills, and reducing self-objectification.

### **Definitions**

In order to offer clarification and consistency throughout this dissertation, the following definitions are offered.

#### **Body Image**

Body image refers to how individuals think, feel, and behave in relation to their physical appearance (Cash, 2008).

#### **Media Literacy**

Media literacy is “a type of communications intervention that promotes adaptive behavior indirectly by teaching individuals...to evaluate the media critically and reduce



the creditability and persuasive influence of media messages” (Irving, DuPen, & Berel, 1998; p. 121).

### **Research Hypotheses**

The prevention program was evaluated based on whether significant improvements were measured in body image attitudes, self-objectification, internalization of the muscular and athletic ideal, sociocultural pressure, and media skepticism. The following research hypotheses indicate the expected changes of both within- and between-group media literacy and body image attitude scores.

Research Hypothesis 1a: Participants attending the program would find media information about “being attractive” less creditable from pre- to post-intervention as measured by the Information subscale of the Sociocultural Attitudes toward Appearance Questionnaire (SATAQ-3).

Research Hypothesis 1b: Participants attending the program would find media information about “being attractive” less creditable post-intervention as compared to the control-wait list group as measured by the Information subscale of the SATAQ-3.

Research Hypothesis 2a: Participants attending the program would display a reduction in internalization of media ideals from pre- to post-intervention as measured by the Internalization-general and Internalization-athletic subscales of the SATAQ-3.

Research Hypothesis 2b: Participants attending the program would have lower rates of internalization of media ideals post-intervention compared to the control-wait list group as measured by the Internalization-general and Internalization-athletic subscales of the SATAQ-3.

Research Hypothesis 3a: Participants attending the program would exhibit less felt pressure from the media to have the idealized body shape/size from pre- to post-intervention as measured by the Pressures subscale of the SATAQ-3.

Research Hypothesis 3b: Participants attending the program would exhibit less felt pressure from the media to the idealized body shape/size compared to the control-wait list group as measured by the Pressures subscale of the SATAQ-3.

Research Hypothesis 4a: Participants attending the program would exhibit greater body image satisfaction from pre- to post-intervention as measured by the Male Body Attitudes Scale (MBAS).

Research Hypothesis 4b: Participants attending the program would exhibit greater body image satisfaction compared to the wait-list control group as measured by the MBAS.

Research Hypothesis 5a: Participants attending the program would exhibit greater body fat satisfaction from pre- to post-intervention as measured by the Body Fat subscale of the Male Body Attitudes Scale (MBAS).

Research Hypothesis 5b: Participants attending the program would exhibit greater body fat satisfaction compared to the wait-list control group as measured by the Body Fat subscale of the MBAS.

Research Hypothesis 6a: Participants attending the program would exhibit greater muscle satisfaction from pre- to post-intervention as measured by the Muscle subscale of the Male Body Attitudes Scale (MBAS).

Research Hypothesis 6b: Participants attending the program would exhibit greater muscle satisfaction compared to the wait-list control group as measured by the Muscle subscale of the MBAS.

Research Hypothesis 7a: Participants attending the program would exhibit a reduction in self-objectification from pre- to post-intervention as measured by the Self-Objectification Questionnaire (SOQ).

Research Hypothesis 7b: Participants attending the program would exhibit a greater reduction in self-objectification as compared to the wait-list control group as measured by the SOQ.

Research Hypothesis 8a: Participants attending the program would not exhibit changes to depression, anxiety, or stress as result of the program as measured by the Depression, Anxiety, and Stress Scale (DASS).

Research Hypothesis 8b: Participants attending the program would not have significant differences in depression, anxiety, or stress as compared to the wait-list control as measured by the DASS.

## CHAPTER 2

### REVIEW OF THE LITERATURE

Researchers and scholars have observed for years that many women have been dissatisfied with their bodies (e.g., Johnson, Roberts, & Worrel, 1999; Thompson, Heinberg, Altabe, & Tanteleff-Dunn, 1999). Conservative estimates show that approximately one-half of American girls and women make negative evaluations of their bodies (Calogero & Thompson, 2010). The psychological consequences of body image concerns for women range from appearance anxiety to severe eating disorder symptoms. In addition, women disproportionately represent the majority of eating disorder patients. Epidemiological data suggests that approximately 5-10% of girls and women display partial to full criteria for eating disorders (Steiger & Seguin, 1999).

Feminist scholars have suggested women's normative body dissatisfaction is a symptom of sociocultural dis-ease (e.g., Seid, 1994). Sociocultural critiques offer compelling arguments considering the highest rates of eating disorders and other body image disturbances exist in industrialized cultures that have adopted Western values (e.g., Seid, 1994; Steiger & Seguin, 1999). While the range of women's body types have not changed over time, the body type considered ideal has historically changed. In the decades since the 1960's, the ideal female body has become more slender and eating disorders in women continue to rise (Thompson et al., 1999; Steiger & Seguin, 1999). Thinness in women has come to represent cultural ideals of success, beauty, power, and self-control (Kilbourne, 1994). Feminist scholars have also raised awareness about the objectification and exploitation of women's bodies in the media and how such

objectification contributes to the growing problem of women's body image concerns (Soban, 2006; Tager, Good, & Morrison, 2006).

Unfortunately, it was not until the mid-1990's that men's body image concerns became a subject of thorough research (Pope, Phillips, & Olivardia, 2000). Part of what contributed to this absence was a research paradigm that emphasized adiposity, size, and weight dissatisfaction (Thompson & Cafri, 2004). Moreover, the social climate has indicated to men that body preoccupation is effeminate and seeking help for such concerns carries shame and stigma (Pope et al., 2000). Lastly, there has been a cultural perception that men, as a group, are protected from body image issues and disordered eating (Connan, 1998). Such cultural perceptions may have contributed to the lack of research on male body image as well as a clinical resistance to diagnosing such concerns (Costa, 2007). Despite these initial barriers, recent explorations into these concerns have revealed important findings for the psychological study, treatment, and prevention of men's body image concerns. The following chapter will detail the relevant research on men's body image concerns and its prevention.

### **Components of Men's Body Image**

Understanding the various relationships people have with their own bodies is helpful for body image research. Body image refers to how an individual thinks, feels, and behaves in relation to their physical appearance (Muth & Cash, 1997). Andersen, Cohn, and Holbrook (2000) emphasize the importance of body image stating: "Separate from a man's genetic endowment and lifestyle leading to his particular body size and shape is the vital issue of how comfortable he is with his body" (p. 40).

Two components within the construct of body image are important to discuss. The first is called *body image evaluation*. Body image evaluation refers to a person's perception of their body size and composition, affective response to one's body, and beliefs about one's attractiveness. Sociocultural and individual notions of attractiveness both influence an individual's body ideal. A person's satisfaction with their body is connected to how they evaluate their body to the body ideal. The more dissonant the ideal is to the current body, the more likely the individual will feel dissatisfied with their body. The last component of body satisfaction is the level of investment an individual has to alter one's body to conform to the body ideal. *Body image investment* may include healthy and unhealthy behaviors. In the following section, a description of the specific elements of body image ideals will be discussed and how such ideals contribute to body dissatisfaction in men and women.

### **The Thin Ideal**

The current social standard for women is to be small, athletic, and thin. The social pressure to conform to this ideal is often described as the *drive for thinness*. The drive for thinness usually comprises of two factors: the desire for thinness and an overestimation of current weight. It is thought that the drive for thinness often contributes to disordered eating most notably recognized in anorexia and bulimia nervosa (Soban, 2006). Anorexia nervosa, specifically, is most characterized by the relentless pursuit of thinness, the dread of weight gain, and the restriction of food intake (Steiger & Seguin, 1999). The drive for thinness is also thought to contribute to the high prevalence of dieting in the population (McCreary, 2002).

Not surprisingly, men do not endorse the same degree of the drive for thinness as women (McCreary, 2004). When comparing women and men, women endorse greater concerns about adiposity (i.e. body fat) and a greater desire to lose weight than men (McCreary, Saucier, & Courteny, 2005). Early research with men's body image concerns would often conclude that men were satisfied with their bodies since men did not endorse a drive toward thinness at the levels of women. Cohane and Pope (2001), however, concluded that these findings may represent more methodological and theoretical issues in how data were collected and interpreted. Early studies would often compare how satisfied men and women were with their *weight*. Consistently early studies would gather data from men that indicated a significant proportion of men wanted to lose weight while another significant proportion of men wanted to gain weight (e.g., Drewnowski & Yee, 1987). In comparison to data gathered with women, it appeared quite peculiar to have a sub-group of men who desired more weight gain. However, these earlier studies did not assess the motivation of the weight gain or loss (i.e. lose body fat, gain body fat, gain muscle mass). Unfortunately, many early studies would also conclude that those men who wanted to gain weight were satisfied with their bodies (Cohane & Pope, 2001).

More recently, however, researchers have demonstrated that lower drive for thinness is not equivalent to body satisfaction in men. While most men do not desire to be very thin, they also do not desire a body with excess body fat. When research addresses adiposity, men on average perceive themselves as fatter than what is considered attractive and ideal (Filiault, 2007; Olivardia, Pope, Borowiecki, & Cohane, 2004). Like women, men tend to present a distorted perception of their own body composition and mostly want their bodies to contain less adipose tissue. There are also

social values placed on boys and men who are ‘overweight’ and ‘underweight.’ Grogan and Richards (2002) found that boys and men relate being overweight as resulting from weakness of will and self-indulgence. They also found that participants thought men and boys with more body fat were less masculine. The men in their study demonstrated that the ideal body men desire is not endomorphic.

Men may be motivated to be thinner; however, not all men desire the level of thinness that is considered ideal by most women. Bottamini and Ste-Marie (2006) found that men in their study considered men with thin (i.e. ectomorphic) bodies as being effeminate and weak. Some of the participants referred to such men as “twinks” which was defined as a male with a skinny physique who could fit into smaller-sized clothing. In the same study, the authors found that the majority of men who were overweight and underweight were teased and bullied due to their size as children. What all of the previous research suggests is that most men want to have a low percentage of body fat, but most men do not want to be exclusively thin.

### **The Muscular Ideal**

If a thin ideal is not what most men identify as ideal then what would the masculine body ideal be? Murray, Touyz, and Beumont (1996) reported that 72% of men and women believe that society has an ideal body shape for men. In their study, 74% reported that the ideal body was muscular whereas 8% stated that it was a slim ideal. Conceptually, the idealized masculine body exists on two axes, one axis representing the level of musculature and the other the level of adiposity. Recent research has concluded that the body ideal of most men tends to be moderately to hyper-muscular while also maintaining leanness (e.g. Olivardia et al., 2004; Ridgeway & Tylka, 2005). To obtain



this body ideal, many men strive to slim down and/or bulk up depending on one's perceived body in relation to the ideal (Tager et al., 2006).

In a qualitative study, male participants described the ideal male body as consisting of five characteristics: muscle definition, large size, “big...but not too big”, strong, and athletic (Ridgeway & Tylka, 2005, p. 213). The subjective definition given presents conflicting statements that exemplify the constrictive nature of the male body ideal. First, the ideal body has muscular definition. A muscular appearance is determined by the amount of muscularity followed by the absence of body fat (Gray & Ginsberg, 2004). In other words, bulk is not sufficient for the ideal body type. A man who is barrel-chested and thick is not what is considered ideal for most college men (Ridgeway & Tylka, 2005). The ideal body is also large in size but “not too big.” Participants in the study explained that having large muscles was desirable but acknowledged a limit to muscle size. In most cases the participants identified contemporary professional bodybuilders as too large. The last two characteristics describe less about the body as an object but how the ideal male body should perform. Having a strong and athletic body was an important part of displaying masculinity. Other research has suggested that environmental mastery plays an important part of men's body image (Tager, Good, & Morrison, 2006); therefore, it is not surprising those characteristics approximating strength and athleticism would be part of the ideal.

In another qualitative study, participants expressed how a muscular appearance communicated strength, prowess, and genetic viability (Adams, Turner, & Bucks, 2005). Participants perceived a muscular body as representative of masculine values of Western culture: financially successful, confident, outgoing, and “that you can take a beating” (p.

275). The muscular body becomes a social symbol for masculine embodiment and lifestyle. Just as the thin ideal is attached to feminine ideals and values, the muscular ideal is connected to social conceptions of masculinity (Cash, 2002; Ricciardelli, Clow, & White, 2010).

Now that a clearer understanding of the masculine ideal has been described, how do men fair in comparison to this ideal? In comparison to the muscular ideal, men are often dissatisfied with their muscles (Olivardia, Pope, Borowiecki, & Cohane, 2004). Men most often report feeling dissatisfied with their chest, arms, and overall muscle size (e.g. Davis, Brewer, & Weinstein, 1993; Garner, 1997; Olivardia et al., 2007). Olivardia and colleagues (2004) found that college men in their sample often reported the ideal male body having 25 pounds more muscle while also having 8 pounds less body fat than their current body composition. A large discrepancy between the ideal body and the current body is thought to be a contributing factor of body dissatisfaction in men (Olivardia et al., 2004). In the same study the authors found that men chose “a perceived female ideal of the male body significantly more muscular and leaner” than what women actually chose (p. 117). This suggests that men perceive women to find more muscular men desirable despite women’s reports to the contrary. This finding is in line with previous research that found that the majority of women found extremely muscular men as unattractive (Pope et al., 2000). Despite what women prefer, college men place an importance on muscularity as the necessary condition to be attractive.

Some researchers have suggested that the drive for muscularity is more prominent in younger adults and adolescents than in adult men (Davis & Cowles, 1991; Lynch & Zellner, 1999). Davis and Cowles (1991) found men 24 and older primarily wanted to

lose weight whereas men younger than 24 wanted to gain weight. This age difference may be due to unwanted weight gain brought on by aging, changes in physical activity, and more concern over health and well-being. Research shows that body dissatisfaction with regard to adiposity tends to increase with age (Tiggemann, Martins, & Kirkbride, 2007). In a study that compared figure drawing selections between traditional college aged men to adult men found 83% of college men wanted to be larger compared to 16% of adult men (Lynch & Zellner, 1999). The authors also noted that 25% of adult men wanted to be smaller whereas zero college men reported wanting to be smaller in the study. College men also reported having significantly higher differences between their current body and ideal body compared to adult men. Anecdotally, the drive for muscularity and its risks to well-being may be in large part age specific and this age difference may be explained by young men's desires for attractiveness and seeking relationships.

### **Psychological Consequences of Men's Body Image Distress**

Along with the lean, muscular, V-shaped body ideal comes the immense difficulty in achieving such a body composition. The discrepancy between the current body and this seemingly "perfect" body ideal can have many negative psychological and behavioral consequences. There are several psychological consequences of men's body image distress. Effective prevention programs must understand the presentation of pathological symptoms that result from body image disturbances. The following section focuses on the most prevalent issues that result from men's body image dissatisfaction.

## **Dieting and Excessive Exercising**

Exercise and healthy nutrition are health-responsible behaviors. However, extreme forms of dieting and excessive use of exercise can be a detriment to health and wellbeing (Costa, 2007). Increasingly, young men are engaging in dieting behaviors with the purpose of controlling body size and/or shape. For example, Hatoum and Belle (2004) found that 29.2% of their sample of college men had dieted. One third of the men skipped a meal when they had not exercised that given day. One seventh had taken dietary supplements to burn fat. One third of the sample had taken dietary supplements to build muscle. Their research concluded that college men may engage in health risk behaviors often for the intention of losing body fat and/or increasing muscle mass.

McCreary, Saucier, & Courtenay (2005) estimated from their research that approximately 17% of male college students diet for the specific purpose of increasing lean muscle mass. Engaging in ultra low-fat, high protein diets are become more popular among men (Cafri et al., 2005; Pope et al., 2000). One form of extreme dieting associated with competitive body building is called cyclical ketogenic dieting (Cafri et al., 2005). While there are many variants to the diet, the most common form is consuming only protein and fat for 5-7 days. After that period is completed, then a diet rich in carbohydrates, protein, and limited fat is consumed for a short period. The dieter would repeat this cycle until satisfied with the results. Another popular dieting practice is anabolic-catabolic cycling (Cafri, Thompson, Ricciardelli, McCabe, Smolak, & Yesalis, 2005; Ricciardelli & McCabe, 2007). Anabolic-catabolic cycling is a repeating two-phase diet that male athletes, body builders, and weight lifters utilize to gain muscle mass while removing “excess” body fat. In the anabolic phase, men will engage in high caloric

intake. They will consume large amounts of food and take dietary supplements in order to accrue body mass. The high calorie intake means that along with muscle growth there is also an increase in body fat tissue. In order to trim down and lean up, men will engage in the catabolic phase where they significantly constrict caloric intake. This particular diet is often paired with rigorous work out routines. Such dieting puts enormous stress on the body and presents a number of health risks (Ricciardelli & McCabe, 2007). In its most extreme form, anabolic-catabolic cycling is a hybrid of binge eating and anorexic-restrictive behaviors (Pope et al., 2000).

Increasingly, men are consuming so-called dietary/performance-enhancing substances (Cafri et al, 2005). The dietary and “performance-enhancing” supplement business is a \$1.6 billion industry (Harvey & Robinson, 2003). Such substances include creatine, protein powders, and other so-called muscle enhancing substances. Dietary supplements can be problematic due to lack of government regulation on the industry. Without sound medical and scientific research conducted on these substances, it is difficult to make conclusions toward whether such substances pose any health risks for the consumer. Some supplements have been identified as potentially harmful after reports of adverse health effects. An example of this is the removal of ephedrine as an over-the-counter dietary supplement (Cafri et al., 2005). Some substances have been found to have trace elements of growth hormones and anabolic chemicals (Cafri et al., 2005). Conversely, many of these products may have no actual effect besides placebo (Andersen et al., 2000).

Men who have body image disturbances may also develop compulsive exercising behaviors that have adverse effects to their wellbeing. Increasingly people are engaging

in physical exercise with less of an emphasis on fitness and health and more in the pursuit of the cultural body ideal. While moderate levels of physical activity can have health promoting effects, the over commitment to exercise may be unfavorable to overall health. Garmen, Hayduk, Crider and Hodel (2004) conducted a study to identify the prevalence of exercise dependence in the college age population. The authors specifically identified those students who engaged in physical activity for more than 360 minutes per week and who also endorsed negative personal or social consequences to their behavior. They specifically excluded student athletes in order to understand the prevalence of exercise dependence in the general student population. They found that 21% of their sample would be considered exercise dependent. The authors also found no statically significant differences in exercise dependence between women and men. Those who were exercise dependent endorsed many psychological and social disruptions as a result of their compulsive exercising behavior.

Yates (1991) identified specific features of individuals for whom physical exercise becomes compulsive and dependent. The following is a list of possible symptoms: (1) The person maintains a high level of activity and is uncomfortable with states of rest or relaxation; (2) The person's physical activity/exercise becomes a key feature in self-definition; (3) Excessive exercising becomes a self-perpetuating process that is highly resistant to change. Often the person will report feeling unable to control or stop the behavior. (4) Excessive exercises is used for the physiological effects (i.e. endorphin release) or for the sensation of extreme exertion; (5) The person will often use rationalizations and other defenses to protect involvement in the activity; (6) The person engages in physical exercise despite injury or illness. Costin (2007) notes that people

who have compulsive exercising behaviors also tend to be achievement oriented, independent, and endorse perfectionism. Given these characteristics, it would not be a surprising to find a significant population within college students who have compulsive exercising behaviors (Garmen, Hayduk, Crider and Hodel, 2004). Often the compulsive exercising rituals disrupts relationships, vocational obligations, and daily activities (Pope et al., 2000). Compulsive exercisers put themselves at risk for a wide array of physical ailments including muscle strains and tears, cartilage damage, stress fractures and other injuries (Costin, 2007). The problems with exercise dependence are also often co-morbid with other psychiatric conditions. For instance, excessive exercising is a key feature in muscle dysmorphic disorder and often accompanies eating disorders.

### **Eating Disorders**

Men tend to experience eating disorders at rates significantly lower than women with most reports estimating about 10% of eating disorder clients are men (Andersen et al., 2000). However, there are some indications that eating disorders may be increasing in men (e.g., Andersen, Cohn, & Holbrook, 2000; Connan, 1998). Binge eating disorder, for instance, is diagnosed equally among men and women. For the most part men who exhibit eating disorder behaviors tend to be similar to women with the same condition (Bramon-Bosch, Troop, & Treasure, 2000).

In a few ways men with eating disorders differ from women. First, men who have eating disorders are more likely to have a history of being overweight or obese compared to women (Costin, 2007). Some men also endorse engaging in eating disorder behaviors to avoid medical conditions found in other family members (Andersen, Cohn, & Holbrook, 2000). Another important difference between eating disorders in women and

men is the age of onset. Men tend to have a later age of onset for eating disorders (average age is 21 years) compared to women (Harvey & Robinson, 2003). For this reason, prevention programming during college years may be vitally important in reducing the onset of eating disorders in young men.

Bramon-Bosch, Troop, and Treasure (2000) compared the presentation of eating disorders in men and women at a psychiatric hospital over the course of three years. Their analysis showed that men in their study were most likely to have an eating disorder as well as a co-morbid disorder. In addition, the men in their study were also more likely to endorse suicidal behaviors compared to women. The authors stated that both of these facts might reflect a clinical bias. For example, there may be more men with co-morbid eating disorders because the additional diagnosis may legitimize the need for psychiatric care. Many researchers and clinicians have noted that clinicians and mental health institutions tend to minimize men's eating disordered behaviors (e.g., Andersen et al., 2000; Costin, 2007; Pope et al., 2000). For instance, clinicians often mistake men's binge behaviors as being a typical male hearty appetite (Corson & Andersen, 2002).

### **Muscle Dysmorphic Disorder**

In the early 1990's, Pope, Katz, and Hudson (1993) described a sub-type of body dysmorphic disorder that was characterized by a preoccupation with musculature and body size. Initially the authors termed the disorder as "reverse anorexia nervosa" since the disorder shared similar perceptual distortions as anorexia nervosa. Men with muscle dysmorphia are often convinced that their body size is quite small and that they do not have sufficient leanness. As most often is the case the men's actual bodies are quite muscular and lean. Because of this perceptual distortion, many men with muscle



dysmorphic disorder will spend long hours exercising (i.e., mostly lifting weights), frequently engaging in body checking behaviors, and will often have rigid diets.

Olivardia (2002) recalls many of the men with the condition spending an average of 5 hours per day thinking about their perceived lack of muscle mass. Many of the men with muscle dysmorphia will engage in various forms of body checking throughout the day. Examples of body checking behaviors are frequent weighting, checking specific body parts in mirrors, asking others opinions about how the body looks, and checking the fit of clothing worn (Walker, Andersen, & Hildebrandt, 2009).

A key diagnostic feature of muscle dysmorphic disorder is that the preoccupation with one's body size disrupts social, occupation, and other important areas of daily functioning. Pope and colleagues (2000) observed that many men with the condition are socially isolated as long work out routines and social anxiety interfere with personal relationships. Social avoidance is common especially in contexts where the body may be exposed to others (e.g., bathing suits at the beach). Sexual relationships often become disrupted, as the person with muscle dysmorphic disorder feels anxious and shameful of their body. They will often arrange their vocational and social life around work out routines and meals. Missing opportunities to go to the gym or failure to consume the "right" amount of foods often create elevated anxiety and stress for the individual (Pope, Katz, & Hudson, 1993).

It is estimated that between 5-10% of weight lifters suffer from symptoms of muscle dysmorphic disorder (Grieve, 2007). Additionally, muscle dysmorphic disorder has a strong co-morbidity with eating disorders, obsessive-compulsive disorder, and major depressive disorder (Olivardia, 2002). Those who are diagnosed with muscle

dysmorphic disorder are at a high risk of abusing anabolic steroids and other muscle enhancing substances (e.g., growth hormones). Grieve (2007) proposed that several factors contribute to the onset of muscle dysmorphic disorder which include socioenvironmental factors (e.g., media influences and sports participation), emotional factors (e.g., negative affect), psychological factors (e.g., body dissatisfaction, ideal body internalization, self-esteem, body distortion, perfectionism), and physiological factors (e.g., body mass).

### **Anabolic Steroid Use**

Men may use supplements and steroids to aid in the pursuit of a lean, muscular body and as a result may put their physical health at risk. Anabolic steroids include testosterone and a series of synthetic analogs of testosterone that promote the growth of lean muscle mass. The use of anabolic steroids has become a prevalent problem among adolescent boys and men (Pope et al., 2000; Irving, Wall, Neumark-Sztainer, & Story, 2002) with lifetime prevalence estimated at 1 million to 3 million Americans (Kanayama, Pope, Cohane, & Hudson, 2003; Pope et al., 2000). It is estimated that one in every 25 high school students have used or continue to use anabolic steroids (Goldberg & Elliot, 2007). Further, steroid use is commonplace among professional body builders with an estimated 77% of competitive bodybuilders are considered frequent users (Blouin & Goldfield, 1995). In 2005, the most recurrent substance detected in Olympic athletes during screening was anabolic steroids, testosterone, and testosterone precursors (Bahrke, 2007).

The use of steroids by athletes and weightlifters for the purpose of increasing muscle size and strength is analogous to food restriction strategies people with anorexia

nervosa utilize (Cafri et al., 2005). Anabolic steroids have become so problematic that organizations and social movements have formed to screen for use in professional and high school sports. The World Anti-Doping Agency (WADA) works with the International Olympic Committee to reduce the use of steroids in prospective Olympians. The Clean Sports Act of 2005 is an example of legislation aimed at screening high school sports teams for anabolic steroids and other performance enhancing drugs.

Using anabolic steroids is not without consequences to health and wellness. Steroid use increases the risk of coronary artery disease, stroke, myocardial infarction, cardiomyopathy, and liver disease (Cafri et al., 2005). Steroid use in adolescents can also reduce final height by prematurely closing the bony gaps in the skeletal system (Pope et al., 2000). More mild side effects include severe body acne and breast enlargement (Olivardia, 2002). Psychologically, steroid use can create both positive mood changes (e.g., euphoria, energy) and negative mood changes (e.g., manic, aggressive, and depressive episodes) as well as have various cognitive impairments to attention and memory (Cafri et al., 2005). There is also research to suggest that those weightlifters that use steroids may have some differences in body esteem compared to weightlifters that do not use steroids (Kanaymana et al., 2003). Weightlifters who use steroids are often less confident about their physical appearance than weightlifters who do not use steroids to increase their physical size and strength (Kanaymana et al., 2003). In the same study, the authors also found that men who used steroids tended to report poorer relationships with their fathers and had higher levels of childhood conduct disorder. The authors note that these may be potential risk factors for steroid use in adolescent boys and men. Steroid use also has a strong correlation with body checking behaviors. Lastly, steroid use can

develop into psychological dependence due to a fear of losing substantial gains in musculature and an unwillingness to discontinue use despite negative health consequences (Cafri et al., 2005).

Given these multiple concerns, it is important for prevention programs to educate college men about the risks associated with steroid use. Goldberg and Elliot (2007) warn against prevention programs that use “scare tactics” since such tactics neither increase knowledge about steroids nor improve attitudes toward their use. In fact, some boys and men who receive “scare tactics” may paradoxically increase their desire to use steroids (Goldberg & Elliot, 2007). Therefore, educational programming on the nature and consequences of steroid use should be based on research findings rather than on cultural values.

### **The Adonis Complex and Other Psychological Concerns**

Many men today are faced with what Pope, Phillips, and Olivardia (2000) have termed “the Adonis complex.” Adonis, in Greek mythology, was the half-man, half-god who represented the ideal male body. He is depicted as having a V-shaped, lean, and muscular body. The Adonis complex describes the normative dissatisfaction most young men have with their bodies (Pope et al., 2000). Pope et al. (2000) surveyed young men asking how many years of their life they would be willing to sacrifice to achieve their body shape/weight goals. They surveyed male readers of a popular magazine and found that 17% would sacrifice more than 3 years and 11% would sacrifice more than 5 years. Pope and colleagues’ (2000) findings suggests that for at least some portion of men, achieving body ideals is valued higher than general health and wellbeing.

The internalization of a body ideal that is moderate to heavily muscular while retaining extremely low body fat is unobtainable for most men (Andersen, Cohn, & Holbrook, 2000). While many men may display symptoms of eating disorders, depression, and body dysmorphic disorders, many more men may have sub-clinical symptoms and generally feel dissatisfied with their level of muscularity and/or body fat. Pope et al. (2000) estimate that there may be close to 50 million men in the U.S. that are muscle-dissatisfied.

Negative body image has been strongly associated with psychological distress in men (Agliata & Tantleff-Dunn, 2004). A higher drive for muscularity has been shown to be related to poor self-esteem in boys and men (Cohane & Pope, 2001; McCreary & Sasse, 2000; Olivardia et al, 2004). Body image issues have also been strongly correlated with depression in men (Olivardia et al., 2004). Some researchers have hypothesized that the ideal masculine body image reflects the dominance, strength, control, independence, and power that are characteristic of traditional masculine identity (e.g., McCreary & Rhodes, 2001; McCreary, Saucier, & Courtenay, 2005; Tager et al., 2006) and that failure to obtain the ideal body may be a sense of loss of manhood resulting in low esteem and depression symptoms. Research also suggests men with certain personality characteristics may be more susceptible to body image concerns. Davis, Darvinen and McCreary (2005) found that those men who were “easily made anxious, had strong perfectionistic tendencies, and were highly focused on their physical appearance and their bodily fitness, tended to report the highest drive for muscularity” and the negative consequences a high drive entails (p. 355).

Lastly, men are increasingly turning to surgical interventions to alter their body shape and size. The number of men who elect to have cosmetic surgery has continued to grow. In 1994, 43,983 men underwent cosmetic procedures compared to 1.5 million in 2009 (American Society of Plastic Surgeons, 2010; Sarwer, Creand, & Gibbons, 2007). In 2009, the most common non-invasive cosmetic procedures men elected were Botox injections, microdermabrasion, and laser hair removal while the most common surgical procedures were rhinoplasty, liposuction, and hair transplantation (American Society of Plastic Surgeons, 2010). Procedures to increase the appearance of bulk (i.e., pectoral, buttocks, and calf implants) have become more common within the past decade (Sarwer, Creand, & Gibbons, 2007).

### **Theories of Muscularity**

There is sufficient evidence to suggest that not only are men increasingly becoming concerned about their body image but that there are a number of negative psychological consequences to body image dissatisfaction (e.g., Olivardia et al., 2004; Thompson & Cafri, 2007). Effective preventive interventions are those that are theory driven (Nation et al., 2003). Several theories have been developed to explain the development of body image distress in men. Identifying those factors that influence the development and maintenance of body image distress are important for prevention work (Thompson et al., 1999). While it is acknowledged here that the presentation of body image disturbances has multiple factors, prevention interventions are best implemented when identifiable targets of intervention are understood both theoretically and empirically. The following theories are those that could be directly applied to psychoeducational prevention interventions for men.

## **Sociocultural Theory**

Sociocultural theory asserts that every culture constructs standards for beauty (Thompson et al., 1999). The general tenet of sociocultural theory states that cultural values of attractiveness and body-focused emphasis influence individual values and behavior. Cultures convey messages to individuals about which physical characteristics are considered valuable, attractive, and desirable and which are not. In order to understand, treat, and prevent body image concerns, sociocultural theory would be concerned with social, cultural, economic, and historical influences on constructed body ideals. Therefore body image concerns are not located primarily within the biology or individual psychology of the person but rather are a representation of a cultural and social construct. Research has shown that changing beauty ideals for women in America are strongly correlated with eating disorder rates (Thompson et al., 1999). For instance, the radical shift from the curvaceous female ideal (i.e. Marilyn Monroe) to the very thin female ideal (i.e. Twiggy) is thought to be a major contributing factor to the rise of restrictive eating behaviors in women (Thompson, Heinber, Altabe, Tantleff-Dunn, 1999). Similarly, Westernized cultures have begun to stress the importance of lean muscularity as the current societal standard for male attractiveness.

Sociocultural theory posits body image ideals as historically contextual. The ideal male body in Western cultures has changed throughout time (see Luciano, 2001). The lean and muscular body ideal that has become omnipresent in American culture did not emerge until the mid-1970's. In fact, most historians and psychologists agree that previous to the 1980's, American men were less concerned with their physical looks (e.g., Andersen et al., 2000; Luciano, 2001; Pope et al., 2000; Thompson & Cafri, 2007).

Men's body ideals have become increasingly muscular and lean the last thirty years and have become increasingly unattainable for most men (Pope, Olivardia, Gruber, & Borowiecki, 1999).

Body ideals are also culture specific. Research has demonstrated that the ideal female and male bodies are thinner in industrial and post-industrial countries compared to developing countries (Thompson et al., 1999). Even with obesity continuing to increase in America, the male ideal body has become increasingly lean and muscular over time (Luciano, 2001). A growing body of evidence shows that men's dissatisfaction with their muscularity is strongest in Westernized, postindustrial cultures (e.g., Fredrick, Buchanan, Sadehgi-Azar, Peplau, Haselton et al., 2007).

Sociocultural theory also emphasizes the role the media plays in the creation and maintenance of culturally ascribed beauty ideals. The modern media exerts considerable pressure on men to be muscular and lean (see section on mass media below). In addition, the beauty ideal is socially ascribed positive characteristics that often reinforce cultural values of gender (Calogero & Thompson, 2010). Research has shown that most American men ascribe positive characteristics toward those men who have lean and muscular bodies and negative characteristics for those who do not represent the ideal (e.g., Bottamini & Ste-Marie, 2006; Grogan & Richards, 2002).

According to sociocultural theory, body image disturbances result when an individual internalizes the culturally defined beauty ideal as a personal goal. The process of *internalization* is described as the "extent to which an individual cognitively buys into societal norms of size and appearance, to the point of modifying one's behavior in an attempt to approximate these standards" (Thompson, van den Berg, Roehrig, Guarda, &



Heinberg, 2004; p. 295). Internalization of such body ideals is the precursor to later pathological concerns that include eating disorder, muscle dysmorphic, exercise dependence, and extreme dieting behaviors.

### **Social Comparison Theory**

Sociocultural theory, however, is not without some short comings. The most alarming concern is the theory's lack of concern about individual vulnerabilities toward these potentially harmful cultural messages. Social comparison theory (Festinger, 1954) began to be used as a way of describing the mechanism responsible for *how* individuals internalize socially constructed body ideals. The theory proposes that human beings engage in a continuous self-evaluative process. Such self-evaluative processes help people develop a consistent and orderly impression of the self in relationship with others. Festinger (1954) developed social comparison theory to describe the processes by which people self-evaluate characteristics, strengths, liabilities, and capabilities. The theory asserts that when a person is uncertain about a specific attribute, she or he will examine objective standards if possible. When objective standards are not possible, then the person will compare with others in order to clarify her or his standing with regard to the attribute in question. Since body image lacks an "objective" standard, a person is most likely to engage in social comparison processes. For instance, if a man asks himself "Am I attractive?," he will be unable to obtain any objective standard (e.g., charts, data, or health information on attractiveness). He may instead rely on his relative standing in his social environment in order to define his attractiveness (e.g., the body size and shapes of friends, family, popular media, and role models).

The selection of a comparison target is an important feature of social comparison theory. The theory distinguishes between universalistic comparisons and particularistic comparison targets. Universalistic comparison is when a person evaluates himself or herself with a global comparison target on a specific attribute. In the case of male body shape and size, the global comparison would most likely be the lean and muscular body portrayed by mass media. Conversely, a particularistic comparison is when a person compares with others whom they share a particular bond or identity. Peer groups and family members would be an example of a particularistic comparison group. Research suggests that men who have a propensity to engage in more universalistic comparisons are more likely to experience body image disturbances and engage in health risk behaviors (Morrison, Morrison, & Hopkins, 2003).

Heinberg and Thompson (1992) investigated comparison groups selected by men and women. They had male and female undergraduate students rate the importance of six social groups (U. S. citizens, celebrities, other university students, classmates, friends, and family) as comparison targets for attractiveness. They found that family members were the least likely target comparison group for men and women. Friends were the most common comparison group. They found that compared to women, men were more likely to rate celebrities as an important comparison group for attractiveness.

Social comparison theory provides important insights into the prevention of body image concerns. The engagement in what Cash (2008) calls the unfair comparison is thought to contribute to the emergence of body image problems. Unfair comparisons are those comparisons women and men engage in when they compare themselves to those idealized images in the media. Since the images of the media do not necessarily

represent reality, women and men comparing their bodies to those in the media will certainly result in an increase in body dissatisfaction (Levine, Piran, & Stoddard, 1999). Therefore, pertinent to any prevention program is addressing these unfair comparison processes either by illuminating how media distorts these images or by providing appropriate comparison targets.

### **Threatened Masculinity Theory**

Scholars have suggested that one of the contributors to men's body image concerns is the sociocultural shift in masculinity and gender roles. Luciano (2004) describes how the cultural expression of masculinity of the working class in the late 1800's to early 1900's centered on ruggedness, toughness, and power. Men tended to work strenuous jobs that involved difficult physical labor of some sort. With the growing middle class and families moving to more urban environments, men's bodies were becoming less the focus of work. Middle-class men began to obtain earnings through non-physical sources including working in offices. Luciano (2004) observed that with the increase in non-physical jobs men became increasingly interested in sports. Playing football or boxing became avenues to display masculine power. For the working-class and middle-class alike, the central role that men played in families was the primary income earner.

It is interesting to find that despite the reduced need for physical strength among men in developed countries there is a growing emphasis on muscularity (Gray & Ginsberg, 2007). The most financially rewarding jobs are those in which employees are expected to possess social and technological skills for the global market. Men's increasing focus on muscularity and various body image concerns seems to be less to do

with the bodies' contribution to the workplace. This peculiar paradox has been explained as the result of sociocultural shifts. The most notable of these sociocultural events has been the growing economic power of women.

Kimmel (2003) theorized that the traditional male role as breadwinner has come into conflict with women's empowerment. Marketplace manhood, termed by Kimmel, was an identity obtained through the accumulation of wealth, power, and status in the capitalistic marketplace. Women were largely marginalized in the economic system and thereby not a competitive threat for most men. The Women's Movement and advocates for social justice would eventually challenge preconceived notions of gender roles. Women have ever increasingly entered into and successfully competed with men in the workplace (Bordo, 1999). More recently, women have become the majority of the workforce in the U.S and earn 3 out of every 5 college undergraduate degrees (Rosin, 2010). As a result, women have become less dependent on men for financial security and power. Therefore, contemporary men can no longer rely on the role of financial provider as a way to exert masculinity.

Historical changes to gender roles have been shown to produce gender role strain (Pleck, 1981). Threatened masculinity theory posits that men increasingly desire a more muscular and lean body as a method for exhorting a sense of masculinity in contemporary society. As a compensatory effort to maintain a sense of masculinity, many men may focus on the development of muscularity. Muscularity, specifically, is emphasized due to average differences in muscular size and strength of men compared to women (Gray & Ginsberg, 2007). After all, the areas that men most often focus their attention on developing (e.g., arms, chest, and abdomen) are also the areas where men, on average,

have greater muscle size than women (Bottamini & Ste-Marie, 2006). Culturally speaking, lean-muscularity has become synonymous with masculinity. Rohlinger (2002) eloquently stated, “the male body is a tool that men, on various levels of consciousness, manipulate in order to achieve a gendered identity. The appearance and use of the body serves as a hierarchical gauge, which ranges from the masculine, the very strong, to the feminine, the very weak” (p. 62). Consequently, those men who do not have or obtain such a muscular and lean physique are often considered less masculine (Bottamini & Ste-Marie, 2006; Grogan and Richards, 2002).

Threatened masculinity theory, however, lacks any direct empirical evidence. Circumstantial evidence shows that the pursuit of masculinity is strongest in cultures where physical strength is less important in the daily lives of men (e.g., Gray & Ginsberg, 2007). The theory, however, does provide an invitation to inquire into the cultural constructions of gender and how this affects body image. Feminist scholars have for some time asserted that body image disturbances and eating disorders in women are resultant of restrictive gender roles perpetuated by institutions of social control (Rothblum, 1994). While there is limited empirical support for threatened masculinity theory, it is clear that there are cultural gender-based expectations “that tie femininity and masculinity to certain physical attributes” (Cash, 2002, p. 40). The threatened masculinity theory can offer prevention programs the opportunity to develop within men the ability to question cultural prescriptions of masculinity and muscularity. Deconstructing portrayals of masculinity is particularly important when investigating how media and other social institutions display men’s bodies.

## **Integrating the Theories**

The three theoretical positions outlined previously all contribute to the development of the current prevention program. Sociocultural theory encourages mental health practitioners to locate the source of body image disturbances within the society rather than solely within the individual. In this way, sociocultural theory is very similar to feminist positions on eating disorder and body image pathology (e.g., Shisslack & Crago, 1994). Prevention programs, according to the theory, should help educate people about the skewed notion of attractiveness and beauty that is thrust by social institutions. Prevention programs informed by sociocultural theory also aim to help individuals resist these cultural messages.

Social comparison theory complements sociocultural theory by showing that comparing oneself to the cultural ideal increases feelings of body dissatisfaction. Prevention programs should address this propensity to compare oneself with media images. Men who look to the celebrity, fashion, sport, and fitness media as a source of comparison are comparing themselves to what Cash (2008) calls the unfair ideal. Such comparisons are unfair because the person is human and possesses imperfections while the constructed media ideals are distortions of reality. Prevention programs should then educate men about how these media images are not realistic sources of comparison.

Lastly, threatened masculinity theory emphasizes the importance of considering the role gender plays in the development of body image disturbances. Locating college men's body image concerns within the context of history is an important first step. Developing body image prevention programs for men requires an appreciation of the dynamics of gender in contemporary society. Threatened masculinity theory encourages

prevention programs to understand men's body image problems as part of the way contemporary masculinity has become embodied. One potentially meaningful intervention is to dispute the cultural messages that masculinity is defined solely through muscularity. Feminist informed prevention programs have long acknowledged the importance of challenging social constructions of beauty, empowering women, advocating for social change, and developing communities of support (Shisslack & Crago, 1994). College campuses need to create such social support for men. Creating an environment whereby men are free to express their concern about their bodies is an important step that needs to be made in the future. Psycheducational interventions for men on college campuses can be the beginning for community support.

### **American Culture, Mass Media, and Men's Body Image**

Nation and colleges (2003) noted that effective prevention interventions are those that are "socioculturally relevant" in which community norms and cultural beliefs and practices are taken into consideration (p. 453). Scientific research has been conducted to investigate the changes in culture and how is it influencing men's body image. While sociocultural theory, social comparison theory, and threatened masculinity theory provide some initial thoughts about why men are increasingly dissatisfied with their bodies, research has discovered important trends. In the next section, an exploration into the shifting cultural tides of men's body image will be explored. In addition, empirical research that has investigated the effects media exposure has on men's body image will be detailed.

Before going into the research literature, however, a glimpse into contemporary media's construction of muscularity and masculinity is offered. "This is Sparta!," echoes

into a crowded theater as Gerard Butler portrays a Spartan hero in a masculine bravado in the movie *300*. In Frank Miller's rendition of the battle of Thermopoli, all the Spartan men have hyper-muscular, bronzed, and cleanly shaven bodies. In Sparta the average male is the equivalent in size of a bodybuilder and equivalent in strength as a professional athlete. The psyche of the average Spartan man is just as hardened. They experience no fear in battle, no physical pain from injury, and laugh in the face of danger. The movie is an obvious stretch from what Greek men were during such times.

Despite the fantasy, in the coming months of the film's release lead actor Gerard Butler would be on the cover of *Men's Health* magazine. In addition the magazine posted an article with video demonstrations on their webpage outlining the workout that was responsible for the ripped bodies displayed in the movie (<http://www.menshealth.com/men/fitness/workout-plans/muscle-building/article/5e1790ecab7e1110vgnvcm20000012281eac#>). The workout includes the following exercises with no breaks between them: 25 pull-ups, 50 dead lifts, 50 pushups, 50 box jumps, 50 floor wipers, 50 single-arm clean-and-arm presses, and 25 pull-ups. A workout as described would necessitate physical strength and endurance. The thirty-minute workout, however, would not be solely responsible for the muscular men in the film. Surely the men in the film devoted most of their available time to developing and maintaining such a physique. Anabolic steroid use may also be another method by which men in the film were able to obtain such physical condition.

### **Changing Male Beauty Ideals in the Media**

The mass media has become a pervasive mechanism by which the gendered body ideals have been transmitted to individual people (e.g., Andersen, Cohn, & Holbrook,



2000; Bordo, 1999; Fawcner & McMurray, 2002; Kilbourne, 1994; Luciano, 2001; Pope et al., 2000). The media provides entertainment, socialization, education, and advertising opportunities to viewers. Freedman (1986) makes note that beauty ideals have historically been displayed in various forms of art and literature. Consumers knew such visual art as a romanticized version of beauty. Modern media, however, has obscured the line between reality and fiction. Female and male beauty icons are displayed in high-definition, air-brushed, staged, digitally mastered, and soft-focused filtered worlds. These contemporary images are often interpreted as representations of reality (Thompson, et al., 1999). In addition, modern media is increasingly influencing men to view their bodies as objects.

Franzoi (1995) proposed that there are two ways to view the body: as a process (i.e., the instrumentality of the body, the function of the body) and as an object (i.e., a collection of discrete parts for the aesthetic value). Traditionally, men conceptualized their bodies more in terms of their function as compared to women who tend to view their bodies more as an object. The media continues to focus on the instrumentality of the male body in advertisements specifically with the focus on men as powerful. However, increasingly contemporary media is using the male body as an object to be viewed. Bordo (1999) observed that men have increasingly been eroticized in the consumer marketplace. Companies such as Calvin Klein and Gucci began to market their underwear products with mostly nude men in the mid 1990's. One advertisement located in the *New York Times* in 1997, she recalls, presented a fully naked male model with his bare buttocks facing the camera.

While such an image was a novelty in the early 1990's, modern advertisements are filled with the objectified male body (Rohlinger, 2002). To investigate this phenomenon, Pope, Olivardia, Borowiecki, and Cohane (2001) looked at the image changes across time in popular women's magazines *Cosmopolitan* and *Glamour*. The authors collected data from every publication of both magazines in a forty-year span ranging from the 1960's to the late 1990's. Pope and colleagues wanted to track changes in the percentage of women and men who were partially or fully undressed in advertising in these magazines. They found that while the percentage of undressed women rose only slightly over time, the percentage of undressed men rose significantly. Especially from the early 1980's to the late 1990's, there was a dramatic increase in undressed male models used in advertising. By the end of the 1990's the percentage of advertisements with undressed women and men were equal.

Similar research by Rohlinger (2002) suggests most of the images of men in the media are objectified. The author analyzed male images from *GQ* and *Men's Health* magazines across a ten-year period starting at 1987. *GQ* and *Men's Health* are two of the most popular men's magazines in the industry. Adapting methodologies employed to identify images that specifically objectified women; Rohlinger (2002) investigated the types of male images depicted in advertising. The results from the study demonstrated the most common depiction of masculinity in the magazines was erotic in nature. The next two common depictions were the "male as a hero", and the "working male." The erotic male image was defined as those images whereby the body was placed on display, has sexual overtones based on pose or image content, and the physical body is emphasized.

Not only have men increasingly become eroticized but also the size and shape of male models used in the media have changed across time. As a method to analyze the changing social ideals of men's bodies in the media, Leit, Pope, and Gray (2000) analyzed the body shape and size changes of models for *Playgirl* magazine from the early 1970's to the late 1990's. The authors calculated the fat-free mass index of each centerfold model. The fat free muscle index (FFMI) estimates the level of muscularity and has implications for identifying potential steroid users. The average male has a FFMI of 20 whereas a distinctly muscular male would have a FFMI of 22. Those with a FFMI of 25 are at the upper limits of natural muscularity. The authors found a dramatic increase in muscularity in the models across time where most models in the 1990's displayed FFMI's of over 22. They also identified 2 models in the 1980's and 6 models in the 1990's who had FFMI's that exceeded 25. Having an FFMI over 25 enacts obvious suspicion of anabolic steroid use.

The type of ideal male body depicted in the media differs between products marketed for men and women (Fredrick, Fessler, & Hazelton, 2005). Fredrick et al. (2005) systematically compared those male images marketed to men and women by comparing men's and women's magazines. Their analysis found that those magazines that were marketed toward men were significantly more muscular than those images marketed toward women. Furthermore, the media images marketed specifically to men are much more likely to emphasize physical size, muscularity, and leanness.

In an interesting study that investigated action toys, Pope, Olivardia, Gruber, and Borowiecki (1999) found that toys like G.I. Joe and Luke Skywalker have become increasingly lean and muscular. The relatively slender G.I. Joe of the 1970's is waif-like

in comparison to the modern G.I. Joe. The most recent G.I. Joe figures sport six-pack abs, large pectoral muscles, large lateral muscles, and defined serratus muscles that are commonly developed in bodybuilding. G.I. Joe Extreme, for instance, had muscle dimensions that exceeded the largest of body builders. Recent Luke Skywalker and Hans Solo action figures also display a bodybuilder's physique with broader shoulders, narrower hips, and large muscularity as compared to the first edition.

Television production companies have increasingly selected male characters with muscular and/or lean bodies. Fouts and Vaughn (2003) conducted a content analysis of 27 prime-time television comedy shows. They found that 75 of the main male characters showed negative portrayal of heavy or fat male characters. Weber (2006) analyzed the meta-messages of men's make-over television shows. Television shows such as *Queer Eye for the Straight Guy*, *Extreme Makeover*, *Ten Years Younger*, and *What Not to Wear* are examples of shows that emphasize a physical make-over. Discussing the content of makeover shows, Weber (2006) states:

“Much like the motivation for women who engage in makeovers, the overall goal of the transformation is ostensibly to bring the outside and inside into harmony. And yet, the clear message of makeover programming is that by improving the outside, one can make the inside better and healthier. Given this, it is not congruence between inside and outside that the makeover subject needs, but heightened internal confidence brought on by an embodied expression of conventional modes of attractiveness. For men, attractiveness is about showing a body that is lean, strong, and physically able, which requires pre-selecting makeover candidates who already possess such a body or can be made to look like they do. (p. 301)”

Such makeover shows emphasize that once the physical appearance of the person is appropriately attractive and ideal, then the psychological self-esteem and wellbeing will naturally follow. Unfortunately, this is also the psychological position many people

diagnosed with eating disorders and body dysmorphia take concerning their bodies (Costa, 2007).

### **Gym Culture and Body Building**

Body building as a sub-cultural has had considerable influence in the mainstream culture (Luciano, 2001; Klein, 2007). Throughout the decades, bodybuilding has made full-body depilation (i.e. removal of body hair), weight lifting, and self-objectification more acceptable among men. Perhaps the influence of the body building culture is most epitomized by former Mr. Universe, Mr. Olympia, and governor of California, Arnold Schwarzenegger. Arnold, in particular, was heavily responsible for mainstreaming weight lifting exercise and has become an icon of modern masculinity (Luciano, 2001). His successes have included being a champion bodybuilder, a successful actor, a businessman, author, and politician. Muscular and lean celebrities have increasingly appeared in all areas of entertainment from movies (e.g., Sylvester Stallone, Wesley Snipes, Vin Diesel, The Rock) to music (e.g., 50 Cent, L.L. Cool J., Mark Walberg) to politics (e.g., Arnold Schwarzenegger, Scott Brown).

Despite most men not desiring a bodybuilder's body, the bodybuilding sub-cultural has had considerable influence on men's health and exercise behaviors (Luciano, 2007). The first influence is the rise in men's gym memberships. Gym memberships have grown by over 25% since 1998 (Klein, 2007). Luciano (2007) notes that until the late 1980's, most private gyms were devoid of extravagant weight lifting equipment and most male gym members were professional bodybuilders or athletes. More recently, recreational weight lifting has become a common exercise practice for many men. A quick browse through so-called health and fitness books will reveal a plethora of manuals

and guides instructing men in how to build a lean and muscular body. Most books of this kind provide material on work-out routines, diet plans, and promises of effectiveness. For example, Mejia and Berardi's (2005) book entitled *Scrawny to Brawny* details a workout and diet program for those "hard gainers" who are often thin. King and Schuler (2003) provide a definitive guide toward building a muscular body. The book discusses work out routines and diet with numerous pictures of bodybuilder physiques displaying targeted muscle groups. Television and internet advertisements such as the P90X program ([www.beachbody.com](http://www.beachbody.com)) promise significant gains in muscle and loss of body fat in a little as 90 days. Such products promise consumers that the way to a "perfect" body is through a comprehensive workout and diet plan.

Popular men's magazines have also moved toward a similar trend. Labre (2005) conducted a content analysis of the articles in the two most popular men's health magazines: *Men's Health* and *Men's Fitness*. *Men's Health* magazine has a worldwide subscription of 1.7 million people and *Men's Fitness* has 600,000 subscribers. The author randomly read and coded a quarter of the articles in both magazines from 1999 to 2003. The results indicated that more than a quarter of the articles were about becoming lean and muscular, 18% were about physical or mental health, 15% were about fitness and sports, 12% about sex and relationships, and 8% about nutrition. The author concluded that these magazines are much less to do with health and more focused on altering one's body primarily for physical appearance purposes.

The content of these materials emphasize improving body appearance through regimented workout rituals and dieting. The emphasis on form over function is indicative of bodybuilding values. In the bodybuilding community, the *image* of power, vitality,

and health is emphasized foremost (Klein, 2007). Despite the obvious objectification processes involved in the content of this specific media, it is often marketed as forms of “health” and “fitness”. With such a guise, such physical sculpting practices are assumed as healthy and necessary (Hatoum & Belle, 2004). While physical exercise and a healthy diet are important components to health, caution should be used when assuming media images of health are representative of actual healthy practices (Pope et al., 2000).

Another more benign influence is the growing popularity of body depilation. Ever increasingly the male ideal body is absent of body hair (Boroughs, Cafri, & Thompson, 2005). The practice of body depilation is commonplace among bodybuilders (Luciano, 2001; Klein, 2007). To investigate just how prevalent a desire for less body hair is among men, Borough, Cafri, & Thompson (2005) asked college aged men if and where on their bodies they remove hair. Surprisingly, 60% of their sample engaged in some form of body depilation. The most common regions of depilation were groin, abdomen, and chest. This not surprising given that the majority of modern male fashion models and celebrities are presented with hairless upper bodies (Bordo, 1999). Today’s male models, actors, and professional athletes are almost always devoid of any body hair. The most salient reasons for body depilation practices among their participants was greater cleanliness, sex appeal, and making the body appear more defined and muscular. Like bodybuilders, men remove body hair to showcase their muscularity. There is a presumed sexual appeal to the behavior as well. While the practice of depilation is not harmful, such research shows the changing cultural ideals and how the bodybuilding sub-culture may be affecting the mainstream (Klein, 2007). In other words, the practices that were once exclusive to the body building sub-culture are becoming more commonplace

among college men. While some of these practices may not include health risks (i.e. body depilation) other practices may be more problematic (i.e., excessive exercise, steroid use, extreme dieting).

Given the surmounting evidence of a growing mass media that emphasizes the eroticized muscular male, what impact do such media have on men's body image?

### **Effects of Media Exposure on Body Image**

The media is a major influential factor contributing to the body image disturbances of men and women (Thompson et al., 1999). Through a process of social comparison, men and women will have the tendency to compare their own bodies to the body ideals portrayed through the mass media (Myers & Crowther, 2009). Research has demonstrated when men make universalistic comparisons (i.e. comparing their body to the culturally defined standard for beauty and attractiveness) there is a resultant decrease in positive body image (Morrison, Kalin, & Morrison, 2004). Particularly harmful are upward comparisons whereby a person compares their body to the virtually unobtainable cultural body ideal. Such upward comparisons have been known to cause negative consequences to mood and self-esteem (Hargreaves & Tiggemann, 2009).

Research has demonstrated that exposure to images of ideal muscularity has negative consequences for the viewer. Agliata and Tantleff-Dunn (2004) set up an experimental design comparing men who were exposed to ideal images of attractiveness to those exposed to neutral images. Men exposed to ideal images reported higher muscular dissatisfaction and higher levels of depression after viewing. Baird and Grieve (2006) had college men observe advertisements that were collected from popular men's magazines such as *FHM*, *Maxim*, and *Sports Illustrated*. The authors showed measurable



differences between those men who viewed male models versus products only.

Participants who viewed male models reported higher levels of body dissatisfaction compared to those who only observed product advertisements without models. Hobza, Walker, Yakushko, and Peugh (2007) also found that exposure to ideal images in the media had a negative effect on body image but may not have an immediate effect on self-esteem.

In another study, Hargreaves and Tiggemann (2009) had participants either observe common television commercials depicting male ideal bodies or commercials without male ideal bodies. They found that men who observed the television commercials depicting male ideal bodies reported lower muscle satisfaction than those who viewed the nonappearance commercials. In addition, the authors collected data on the effects social comparison had on men's body image. The authors found that men who tended to engage in more upward social comparisons subsequently reported decreased feeling "strong", lower weight satisfaction, and lower muscle satisfaction after viewing the commercials. They also found that men who were high in appearance orientation were most vulnerable to the effect of muscular ideal images' effects on muscle satisfaction. Hargreaves and Tiggemann's research offer important insights into the primary prevention of men's body image disturbances. First, the amount of social comparison was not a major factor to body image satisfaction. Rather, the direction of the comparison was the most vital. Men comparing themselves to the hyper muscular social ideals resulted in greater body dissatisfaction. Second, those men who tend to be more orientated toward appearance evaluation also tended to be most likely affected by commercial representations of body ideals.

Farquhar and Wasyliw (2007) compared the effects of viewing objectifying media versus performance-focused advertisements. The authors found that men were more likely to have negative self-evaluation after watching advertisements that represented the male body as an object than when the male body is used to emphasize performance. Their findings suggest objectification in the media has a similar impact on self-evaluation on men as it does on women. Exposure to media ideals also has impacts on negative body image behaviors.

Aubey (2006) found that after exposing men to sexually objectifying television and magazines, the men had an increase in body surveillance. Body surveillance is a behavioral representation of self-objectification whereby the person begins to perceive their body as an object. In a study that investigated the correlation between fitness magazine consumption and behaviors, Hatoum and Belle (2004) found that men who read more male-directed magazines were also more likely to use beauty products, take dietary supplements to build muscle, and spend more time exercising. Hatoum and Belle (2004) illustrated a strong relationship between media consumption and image-conscious behaviors. Beyond just exposure, the process of internalization compounds the implications of media ideals. When individuals internalize media ideals, they in effect adopt the ideal as a personal ideal and goal. The resultant consequence is potentially an increase in body shame, body checking, and self-objectification (Daniel and Bridges, 2010).

In a recent study, Barlett and Harris (2008) conducted a study to determine if playing a video game that emphasized the body would affective body image. Their study is currently the only study that has investigated how video games impact body image in

men. The authors had college-aged men play a professional wrestling video game and measured body satisfaction, body esteem, attitudes toward muscularity and pursuit of muscularity. Participants were asked to create a character that resembled their physicality and interact with the muscular-men run by the computer. They set up two conditions in which some participants interacted with muscular men or thinner men in the video game. The authors found that in both conditions that men had greater body dissatisfaction, less body esteem, less positive attitudes toward muscularity, and decrease in drive for muscularity after playing the video game. While being the first study to examine the effects of video games, video game playing appears to influence body-image constructs. Barlett and Harris (2008) reported that the average amount of video game playing by their participants was 6.5 hours per week. Given the enormity of time spent engaged in video games and other multimedia entertainment, it is important that media consumers develop critical media consumption skills.

All of the current research on men's exposure to lean and muscular male models has focused solely on acute outcomes. There has not been any research on the long-term effects of chronic exposure to male beauty ideals in the media. Notwithstanding such a deficiency, the current state of research has provided evidence that exposure to idealized male bodies produces negative body image reactions in men. This finding has important contributions to the prevention of body image disturbances. First, exposure to the idealized lean-muscular body has deleterious effects on men's body image attitudes. Men, like women, experience negative body image after viewing "perfected" media images. Second, men have increasingly endorsed felt pressure from the media to have a particular body composition and look a particular way. Prevention programs, therefore,

should focus on developing skills whereby participants learn to deconstruct media images and resist cultural pressures to internalize such body ideals. Educating consumers about the unrealistic images and misguided health information that is disseminated to women and men about body image, health, and exercise has been the primary focus of media literacy and media activism interventions (Levine, Piran, & Stoddard, 1999).

### **Body Image Disturbance Prevention**

In 1994, the Committee on Prevention of Mental Disorders of the Institute of Medicine advocated for an increased investment in the prevention of mental disorders stating: “There could be no wiser investment in our country than a commitment to foster the prevention of mental disorders and the promotion of mental health through rigorous research with the heist of methodological standards” (Mrazek and Haggarety, 1994, p. xvii). Like other psychological interventions (i.e., psychotherapy) prevention consists of the development, implementation, and evaluation components necessary for solid scientific research. The following section will review historical and contemporary views of prevention, the stages of prevention development, as well as those previous eating disorder/body image disturbance prevention programs that have been evaluated.

### **Prevention Defined**

How to define and what constitutes prevention has been the subject of professional debate since the 1960’s (Romano & Hage, 2000). Caplan (1964) early on offered some distinction between various prevention programming. Distinctions were made between primary, secondary, and tertiary prevention interventions. Primary prevention defined those interventions aimed at reducing new incidences of a disorder, secondary aimed at lowering the prevalence rate of the disorder within at-risk groups, and

tertiary aimed at reducing debilitating effects of existing disorders. Originally intended for medical concerns, the application of Caplan's classification system is often difficult with the psychological and educational domains due to the complex etiology of psychological and social concerns (Romano & Hage, 2000).

Gordon (1987) proposed another classification system of intervention which included universal, selective, and indicated interventions. Universal prevention measures were those that were generally positive for everyone (i.e., seat belt use). Selective prevention interventions were offered for those who were at risk for a disorder. Indicated interventions were appropriate for those at high risk for the disorder or high risk of relapse but who are currently asymptomatic. Like Caplan's model, Gordon's classification has been criticized for not adequately addressing psychological prevention (Romano & Hage, 2000).

Romano and Hage (2000) developed five dimensions by which psychological prevention can be understood. While programs may not address all five of the domains, effective programs are those that attempt to address some of these domains: (1) stops (prevents) a problem behavior from occurring, (2) delays the onset of a problem behavior, (3) reduces the impact of an existing problem behavior, (4) strengthens knowledge, attitudes, and behaviors that promote emotional and physical wellbeing, and (5) supports institutional, community, and government policies that promote physical and emotional well-being. With these five domains, Romano and Hage (2000) propose a model whereby prevention both serves the individual's wellbeing as well as invites social and political change initiatives. Additionally, their model promotes those prevention programs that emphasize wellness, health promotion, and resiliency. For the purposes of

the present study, Romano and Hage (2000) provide the most appropriate classification of prevention.

### **Intervention Development**

Over the last quarter century greater attention has been paid to the prevention of eating disorders and other body image disorders (Levine & Smolak, 2006). The scientific evaluation of body image prevention programs, however, has been slower to develop. Prevention programming in general and body image prevention programming specifically can be understood as a process consisting of four components (Price, 1983; Levine & Smolak, 2006). The first component involves a full description of the problem which involves definitions, prevalence, and risk factors. Through this process the identification of those factors thought to be modifiable through intervention are identified (Levine & Smolak, 2006).

Secondly, the innovation of program design is implemented. Drawing together theory and empirical research, a program is crafted to address the public health and/or community concern. Effective programs are those that are theory driven, appropriately timed, and socioculturally relevant (Nation, Crusto, Wandersman, Kumpfer, Seybold, et al., 2003). Vital to any prevention program are considerations for community norms, cultural beliefs, and practices (Nation et al., 2003; Reese & Vera, 2007). Within the context of college aged men, it is important to consider the cultural contexts by which body image disturbances arise.

Once an intervention has been established, a field research phase is implemented with the following goals: (a) to understand the accessibility of the target population; (b) the establishment of collaborative relationships within the community or school; (c) and

program evaluation (Levine & Smolak, 2006). Lastly, once an intervention has been established and reported evidence of effectiveness, the program is continually refined and distributed toward other communities.

Historically, feminists groups and eating disorder scholars have been adept at identifying those psychological and sociocultural factors that contribute to body image disturbances (Levine & Smolak, 2006). Body image disturbance prevention programs to date have been predominately designed to improve women's body image while preventing body image and eating disorders (Winzelberg, Abascal, & Taylor, 2002). Despite the shortage of prevention programming with men, important information can be obtained from those programs that have been conducted and evaluated with women. The following section will discuss relevant prevention research in body image programming.

### **The Objectives of Body Image Prevention**

Prevention programs aim to reduce the risk factors and mediating processes that contribute toward eating disorders and body image disturbances while increasing protective factors and sources of resilience (Levine & Smolak, 2006). The most utilized methods of eating disorder prevention programs have psychoeducational and media literacy components. Psychoeducational interventions emphasize consciousness-raising material and educating students about ways to resist body image disturbances. Such interventions also promote body acceptance as a method of resiliency.

Media literacy components address sociocultural factors that contribute to body image disturbances while teaching skills to develop media skepticism and advocacy. Important to any prevention program is the selection of those risk factors that are thought to be subject to modification through intervention (Levine & Smolak, 2006). Both

psychoeducational and media literacy interventions target distal factors that are thought to contribute to body image pathology (e.g. body dissatisfaction, self-objectification, body esteem, thin-ideal internalization).

One of the difficulties of evaluating prevention interventions are that often such programs are situated within a large-scale ecological intervention (Hotelling, 1999; Levine & Smolak, 2007). Prevention programs are often part of a system-wide intervention for the school or college in which such programs are involved. The advantage of such an ecological strategy is that such prevention programs are simultaneously engaged in proactive and reactive primary prevention (Levine, Piran, & Stoddard, 1999). Proactive prevention focuses on changing those environmental factors (e.g., social norms, public/school policies) that contribute to the problem while reactive prevention focuses on the individual's risk factors. Sometimes referred to as the "bolder model", such prevention programs simultaneously focus on both macro-level and micro-level changes (Irving, 1999). The bolder model approach has some methodological concerns given that measuring "effective" programs may be difficult.

Most consistently, eating disorder and body image prevention programs rely on more traditional methods for evaluation purposes (Levine & Smolak, 2006). In the following sections a review of the prominent programs will be discussed. While healthy body image promotion remains a developing field of psychological research, those studies that have been conducted have offered important insights that can be used in the development of men's body image programs.



## **Psychoeducation Programs**

Psychoeducation interventions for eating disorder and body image disturbance prevention have shown promise (Levine & Smolak, 2006). The content and goals of these programs are diverse in nature. Most programs focus on consciousness-raising activities and the distribution of accurate information about eating disorders, dieting, and exercising. Psychoeducation programs differ in skills training, length, and targets of intervention. Few studies have evaluated general psychoeducation interventions compared to the more robust research conducted on media literacy programs. What research has been conducted has shown some important positive effects in both adolescent and college-aged groups.

O'Dea and Abraham (2000) designed an interactive psychoeducation intervention designed to enhance self-esteem and body image. They theorized that increasing self-concept, self-esteem, and body esteem could prevent poor body image and eating disorder symptoms. The nine-week program was conducted with adolescent girls and boys. The authors found positive results even after a year follow-up. They found that body satisfaction and physical appearance ratings had increased for both girls and boys. They also found a decrease in weight losing behaviors. O'Dea and Abraham encouraged programs to include both girls and boys. The authors felt that having a co-ed program allowed for a greater depth in discussion.

A psychoeducation program was developed and evaluated for adolescent boys (Standfoard & McCabe, 2005). This was the first evaluated program exclusively tailored for boys' body image concerns. The program was designed to provide information to middle school boys about body development and body image. The emphasis on the

program was on enhancing boys' self-esteem and body acceptance of self and others. The program was a two-session program that was conducted within the school system. The authors found that the program was successful in increasing satisfaction with muscles, self-esteem, and lowering negative affect compared to the control group comparison.

Psychoeducation interventions have also been evaluated for college aged populations. Stice and Ragan (2002) conducted an evaluation of a 15-week undergraduate seminar. The intervention was primarily composed of didactic presentations and group discussions. Students were also required to present a 20-30 minute presentation to the class about a relevant topic and write a 10-page paper on the subject. Participants who attended the intervention showed a significant decrease in thin-ideal internalization, dieting behaviors, and eating disorder symptoms at posttest compared to the control group. Stice, Orjada, & Tristan (2006) were able to replicate the results from Stice and Ragan (2002) finding that the psychoeducational program consistently reduces thin-ideal internalization, dieting behaviors, and eating disorder symptoms. Both of these studies provide some evidence that a semester long, structured body image program can have important positive attitudinal and behavioral outcomes for a college population.

### **Media Literacy Programs**

Designing theoretically informed prevention programs for body image disturbances are contingent on targeting those factors that contribute to the onset of body image and eating disordered pathology. One such risk factor is media internalization. Media internalization, or the internalization of societal body size and appearance ideals,

has shown to be a contributing factor in the development of body image disturbances (Levine & Smolak, 2006). Media literacy was developed specifically to decrease sociocultural internalization of body ideals thereby reducing the risk of developing eating disorders and body image disturbances. A significant part of media literacy is also empowering women and men to become active agents who can resist and subvert the media (Irving, DuPen, & Berel, 1998). The fundamental belief of media literacy programs is that people are active processors of media messages and therefore have the power to resist and even change social messages (Levine, Piran, & Stoddard, 1999). Media literacy programs, therefore, take both a proactive and reactive preventative stance with regard to eating disorder and body image disturbance prevention. Media literacy accomplishes these goals by having participants develop media skepticism and reducing unrealistic social comparisons. In addition, many media literacy programs also promote social and political action toward unrealistic media images. Levine and Smolak (1998) summarize that the primary purpose of media literacy programs are to teach students: (a) that all media is constructed, even though often it appears to reflect reality; (b) all media is connected to commercialism; (c) all media have social and political implications; and (d) some media are produced well.

While the empirical research evaluating the effectiveness of media literacy programs have only recently emerged, early research has indicated promise for such an approach. Irving, DuPen, and Berel (1998) developed and evaluated a media literacy program for high school girls. The intention of the program was to have girls develop greater awareness of the standards of beauty portrayed in the media, to reduce internalization of those standards, to reduce the perceived realism of media, and to reduce

the desirability of looking like celebrities and models. The researchers randomly assigned participants to the treatment or a no-intervention control group. In the intervention group they encouraged girls to consider the following: (1) Do real women look like the models in the media? (2) Will buying the product being advertised make you look like this model? (3) Does this model look like this because of this product? (4) Does thinness guarantee happiness and success? They compared the pre- and post-intervention measures. The results of the study indicated that those girls who participated in the intervention demonstrated less internalization of the thin ideal and higher media skepticism compared to the control group. There were, however, no differences in body dissatisfaction, anxiety about weight or shape, or the desirability of looking like thin models.

A recent study also compared a media literacy program to a self-esteem program. Wade, Davidson, and O'Dea (2003) compared the efficacy of media literacy programs with self-esteem programs with adolescent boys and girls. Specific targets for the intervention were reductions in weight concern, shape concern, dietary restriction, and body dissatisfaction. They found that media literacy program only had a positive influence on weight concern and no impact on the other three. The self-esteem program, however, did not show any significant changes in the risk factors studied. One important limitation of their research was the low sample size given the number of statistical comparisons the authors conducted. Lack of sufficient power limits the generalizability of the study.

Another study investigated a longer term media literacy program with middle school aged girls and boys (Wilksch & Wade, 2009). The intervention lasted 8 weeks

and students attended the program twice a week for one hour. The intervention resulted in both girls and boys having a reduction in weight and body shape concerns as compared to the control group. Conducting a 30-month follow up, the authors found promising results. Girls and boys who attended the media literacy program had less eating disorder risk factors including shape and weight concerns and dieting as compared to the control group.

Media literacy programming has also shown some promise for college aged women (Yager & O'Dea, 2008). Stomer and Thompson (1995) created a brief psychoeducation/media literacy intervention for college women that consisted of information on beauty ideals and how they have changed throughout history, and how various forms of media promote certain body types above others. The program discussed the nature and impact of the slender ideal. They also showed how fashion models and celebrities use airbrushing, computer graphics, and plastic surgery to augment media images. The last part of the intervention was allocated toward cognitive techniques to reduce unhealthy social comparisons. Their results indicated that women who participated in the intervention had significant decreases in appearance/weight-related anxiety and internalization of the sociocultural ideal compare to a control condition. The authors, however, did not find any differences between the intervention and control on measures of disordered eating. Despite this short-coming, this study illustrated that even a short intervention (30 minutes) can have a positive impact on body image attitudes.

Robak-Wagener et al. (1998) conducted a four week college seminar for women and men. The intervention discussed body image, eating disorders, media images, and media critiques. Presented with advertisements from popular magazines, students in the

study were asked to consider the motivations behind the advertisement, what “norms” the advertisements perpetuate about women and men, and how the advertisements are presenting information about health and attractiveness. Women in the intervention group reported significant positive changes in perceptions of body image after the intervention. Men in the intervention group did not report any significant changes in body image beliefs. One problematic limitation of this study was the use of an unstandardized instrument to record beliefs about body image.

Early media literacy research was able to clearly articulate changes in media skepticism and sometimes body image attitudes. Research began to experiment with different programs to identify potential key ingredients responsible for the intervention outcomes. Irving and Berel (2001) wanted to compare a media literacy program (called “external oriented”) with a media literacy program that had additional cognitive-behavioral interventions (called “internal oriented”). In addition, they compared the two programs to a video-only condition where participants watched an educational video that discussed sociocultural influences that underlie negative body image. To the researchers’ surprise, all three interventions were similar in effectiveness at increasing media skepticism. In particular, participants were more skeptical of the media’s portrayal of “reality” and were more likely to find fashion models dissimilar to themselves at post-intervention. They, however, did not find any of the interventions effective at reducing internalization of media ideals. The outcome of this particular research calls into question various differing approaches to prevention interventions and entertains the possibility of common factors to prevention interventions. The authors speculate as to

whether or not the brevity of the intervention (45 minutes) contributed to their limited results.

Posavac, Posavac, & Weigel (2001) investigated the effectiveness of three specific types of intervention aimed at interrupting social comparison processes when exposed to media images. Based on social comparison theory, the authors concluded that if participants perceive media images as unrealistic they would refrain from social comparison. After all, social comparison theory posits that we engage in social comparison with those whom we consider similar to ourselves. Media marketing spends a great deal of energy and resources attempting to get viewers to relate to their products/models. Therefore, the intervention aimed at disrupting the comparison processes that are thought to lead to body image disturbances. The authors presented three interventions to three groups of women. The first intervention, named the Artificial Beauty intervention, presented arguments that media images are inappropriate targets for comparison due to the media's use of deceptive techniques (i.e., professional makeup, hair styling, lighting, and photographic effects). Another intervention, called the Genetic Realities intervention, aimed at providing information on genetic factors that produce a distribution of size and weight differences. In this intervention, women were taught that the models used in the media represent a small percentage of the general population. The intervention specifically challenged notions that proper diet and exercise will lead to the thin ideal. The last intervention was a combination of Artificial Beauty and Genetic Realities. They compared these interventions to a control group. The authors of the study administered the interventions while exposing women to the thin ideal portrayed in the media.

The results of the Posavac et al. (2001) study indicate that interventions aimed at educating media consumers about the distortions of media images and the genetics of body composition can have a positive effect on body image. The authors found that all three of the interventions were effective at insulating women from the negative effects of media exposure. They found that the combination of Artificial Beauty and Genetic Realities interventions were the most effective at reducing social comparisons and improving body image in participants.

Coughlin and Kalodner (2006) also wanted to evaluate the effectiveness at reducing eating disorder risk factors using a media literacy program with cognitive-behavioral features. The authors specifically identified high- and low-risk participants in their study and wanted to compare the effects of the intervention on the two groups against high- and low-risk control group participants. The two-session intervention focused on providing psychoeducation on the history and thinning standards of beauty, techniques used by media to create ideal images, and provided cognitive strategies for challenging the media messages. A video was also shown that emphasized the media's manipulation of images of women. They conducted pre- measures as well as an eight-week follow up. They found in their 8 week follow up that women endorsing a high-risk for eating disorders reported a significant reduction in body dissatisfaction, drive for thinness, feelings of ineffectiveness, and internalization of beauty standards. The high-risk group, however, did not show any significant changes in perfectionism, physical appearance comparisons, or awareness of social standards of beauty. They did not find any significant changes in the low-risk intervention group. Coughlin and Kalodner suspect that those college-women who exhibit risk factors for eating disorders may



benefit more from media literacy programs than those women who did not endorse risk factors.

Longer media literacy programs have been conducted to evaluate whether or not intervention length impacts the efficacy of the intervention. Watson and Vaughn (2006) assigned undergraduate women to either a control condition, a video only condition, a short-term condition, or a long-term condition. The authors found that both the short-term and long-term interventions successfully reduced internalization of sociocultural ideals from pre- to post-intervention. They also found no statistical difference between outcome internalization scores between short-term and long-term intervention conditions. In addition, both the short-term and long-term internalization scores were significantly different from the control scores at posttest. When it comes to body esteem, however, the authors found that only the long-term condition exhibited significant changes from pre- to post-intervention measures. The long-term condition was not significantly different than the short term body esteem outcome. Both the short-term and long-term conditions had significantly higher body esteem scores compared to control at posttest. The authors concluded that while the short-term and long-term results are very similar, the long-term intervention had a more significant impact on body esteem. One particular limitation worth noting was the sample size in the study ( $N=54$ ) which resulted in issues of statistical power. Given that the within group analysis of body esteem for the short-term group was near significance ( $p=.063$ ), it is possible that the non-significance may be due to a lack of power.

The reviewed research above illustrates the growing promise of media literacy interventions for women's body image concerns. Media literacy programs, in particular,

have been some of the most empirically tested programs (Levine & Smolak, 2006). Media literacy programming's general theoretical position, that media images and messages influences body image through social comparison processes, can be easily adapted for men's body image concerns. Specifically, programs that focus on accurate dissemination of information, discuss the distorted images in the media, and talk about the genetics of body composition are successful. The literature also reveals that some body image attitudes can improve from brief interventions while more behavioral changes occur with longer and more extensive interventions.

### **Approaching Body Image Prevention with Men**

To date there has been no research evaluating a body image prevention program designed exclusively for college men. Arguably, the inclusion of men in women's prevention program will be less effective given differences in cultural body ideals and the kind of dissatisfaction men have often with their bodies. Still, college men are increasingly becoming dissatisfied with their bodies (Cafri & Thompson, 2007). Therefore, it is imperative that men's body image prevention programs are designed, implemented, and evaluated.

Prevention interventions should target those distal factors that contribute to the onset of body image disorders (i.e. eating disorders, steroid abuse, muscle dysmorphic disorder) which include attitudes about one's body, felt pressure to look a particular way from the media, self-objectification, and internalization of the muscular ideal. Increasing knowledge about men's body image concerns is an important first step. Such education also has the potential for ecological change as these programs could incite important community changes (Irving, 1999; Levine & Smolak, 2006).

Another potential benefit to men's body image prevention is the direct dispute to the myth that body image problems are "a woman's concern." Men are faced with two conflicting cultural messages when it comes to body image. It appears that contemporary boys and men are lead to believe that they must be more self-conscious of their bodies and are presented with a masculine body ideal that is often muscular and lean. At the same time traditional masculinities promote prohibitions against discussing thoughts and expressing feelings regarding one's body. Pope et al. (2000) have termed this the *trouble double bind* of male body image distress. If this double bind continues to be upheld, then one could only predict future problems. As men continue to feel increasingly inadequate about how they look while also feeling unable to express such concerns, suffering can only increase. In addition, Adams et al. (2004) showed that some men feel it is unacceptable have a strong investment to change one's body despite feeling their bodies are inadequate. Men who focus on their appearance are often perceived as vain, narcissistic, or feminine (Pope et al., 2000). Walker, Anderson, and Hildebrandt (2009) summarized these concerns stating:

"Our appearance-obsessed culture supports the development of body image dissatisfaction, eating disorders, exercise addiction, and over concern with shape and weight; yet, our culture also stigmatizes males for expressing emotions and seeking treatment for mental health-related concerns" (p. 169).

In order for body image prevention programs to be successful with men, there must be an acknowledgement of the social stigma surrounding the issues of body image and eating disorders. The first goal of prevention interventions would be to provide psychoeducation on the occurrence of body image distress in men and normalize such concerns. Psychological information can be presented in a way that challenges the double bind and encourages college men to engage in conversation about these concerns.

While psychoeducation programming has been criticized for being too impersonal, such programming has redeeming qualities for men's body image disturbance prevention. Heavily interactive models that are promoted for women's prevention programs may run into direct conflict with masculine ideologies concerning body image concerns. Traditional masculine ideologies, which suggest that men with body image concerns are somehow less masculine, may make interactive interventions initially threatening or shame inducing. Therefore, didactic approaches may provide a context and structure where participants can develop strategies to resist cultural messages that perpetuate unhealthy body image. As Sheehy and Commerford (2006) note, women too can feel tremendous shame about their bodies and programs have responded to this fact. As is often the case, prevention programming is often advertised under the broad label of "health programming" and present material as "how to help a friend" (Sheehy & Commerford, 2006).

Psychoeducation/media literacy programs also have the potential to teach men important skills with regard to their body image. Pope et al. (2000) provided an outline of important skills that could contribute to the maintenance of a healthy body image for men. The authors offered five broad messages which include: (1) men shouldn't buy into the media images around them, (2) acknowledgment that many of the muscular male bodies in the media may be a result of drugs, (3) that various industries profit economically from making men feel insecure about their bodies, (4) that masculinity is not defined by the way a person looks, and (5) it is acceptable to look ordinary, natural, and healthy.

Research from women's body image prevention suggests that longer, more intensive programming is more effective than "one shot" programs (Levine & Smolak, 2006). There has not, however, been any programming with men with regard to this particular issue. The logical first step in evaluating men's body image prevention programming is to develop brief psychoeducation/media literacy interventions and evaluate the intervention's ability to change body image attitudes. Subsequent research could then expand this programming into longer, more intensive interventions. The eventual hope would be the development of long-term prevention work that emphasized macro-level change by which men's body image concerns could be freely discussed between men without shame-provoking consequences. Such interpersonal modes of prevention have the potential to be effective once a cultural climate is established that promotes safety concerning discussing body image issues. For now, a more modest intervention and evaluation will provide the foundation from which other research could blossom.

### **Conclusion**

College men are increasingly becoming dissatisfied with their bodies (Olivardia et al., 2004). Most college men appear dissatisfied with their level of muscularity, body fat, or both. Men express the socially constrained ideal body as being "big...but not too big", has muscle definition and leanness, tall, strong, and athletic. Paralleling this trend is also the increase in the media's portrayal of the lean-muscular male body as representative of attractiveness, masculinity, and success. Increasingly the content of health, fashion, sport, and lifestyle media are emphasizing the male body as an object. Recent research has also shown that exposure to the lean-muscular ideal leads to body dissatisfaction in

men. Women's body image primary prevention has demonstrated that psychoeducation and media literacy programs can have a positive influence to body image attitudes and sometimes behavior. Psychoeducation and media literacy programs are the most reasonable starting point for men's body image prevention programming. Given the absence of empirically evaluated men's body image programs, the development, implementation, and evaluation of college men's body image prevention programming is warranted.

## CHAPTER 3

### METHODS

This chapter explains the methods used in the study. A randomized treatment/control experimental design was used to evaluate the effectiveness of the intervention. The chapter provides information about participants and how they were selected. A detailed description of the prevention intervention is also provided. The remainder of the chapter explains the instrumentation and procedures used in the study.

#### **Research Hypotheses**

A reminder of the research hypotheses for this study follows. The research hypotheses account for the expected targeted changes in participants as a result of the intervention. Additionally, a general psychological distress target was included as a way to determine any non-targeted psychological symptom changes.

Research Hypothesis 1a: Participants attending the program would find media information about “being attractive” less creditable from pre- to post-intervention as measured by the Information subscale of the Sociocultural Attitudes toward Appearance Questionnaire (SATAQ-3).

Research Hypothesis 1b: Participants attending the program would find media information about “being attractive” less creditable post-intervention as compared to the control-wait list group as measured by the Information subscale of the SATAQ-3.

Research Hypothesis 2a: Participants attending the program would display a reduction in internalization of media ideals from pre- to post-intervention as measured by the Internalization-general and Internalization-athletic subscales of the SATAQ-3.

Research Hypothesis 2b: Participants attending the program would have lower rates of internalization of media ideals post-intervention compared to the control-wait list group as measured by the Internalization-general and Internalization-athletic subscales of the SATAQ-3.

Research Hypothesis 3a: Participants attending the program would exhibit less felt pressure from the media to have the idealized body shape/size from pre- to post-intervention as measured by the Pressures subscale of the SATAQ-3.

Research Hypothesis 3b: Participants attending the program would exhibit less felt pressure from the media to the idealized body shape/size compared to the control-wait list group as measured by the Pressures subscale of the SATAQ-3.

Research Hypothesis 4a: Participants attending the program would exhibit greater body image satisfaction from pre- to post-intervention as measured by the Male Body Attitudes Scale (MBAS).

Research Hypothesis 4b: Participants attending the program would exhibit greater body image satisfaction compared to the wait-list control group as measured by the MBAS.

Research Hypothesis 5a: Participants attending the program would exhibit greater body fat satisfaction from pre- to post-intervention as measured by the MBAS.

Research Hypothesis 5b: Participants attending the program would exhibit greater body fat satisfaction compared to the wait-list control group as measured by the Body Fat Attitudes subscale of the MBAS.



Research Hypothesis 6a: Participants attending the program would exhibit greater muscle satisfaction from pre- to post-intervention as measured by the Muscle Attitudes subscale of the MBAS.

Research Hypothesis 6b: Participants attending the program would exhibit greater muscle satisfaction compared to the wait-list control group as measured by the Muscle Attitudes subscale of the MBAS.

Research Hypothesis 7a: Participants attending the program would exhibit a reduction in self-objectification from pre- to post-intervention as measured by the Self-Objectification Questionnaire.

Research Hypothesis 7b: Participants attending the program would exhibit a greater reduction in self-objectification as compared to the wait-list control group as measured by the Self-Objectification Questionnaire.

Research Hypothesis 8: Participants attending the program would not exhibit changes to depression, anxiety, or stress as result of the program as measured by the Depression, Anxiety, and Stress Scale.

Research Hypothesis 8b: Participants attending the program would not have significant differences in depression, anxiety, or stress as compared to the wait-list control as measured by the Depression, Anxiety, and Stress Scale.

### **Participants**

Participants were 138 undergraduate male students attending a large Midwestern University. Of the 138 participants, 17 were excluded from the study because they had indicated they had previously participated in this researcher's program (see inclusion criteria below). This resulted in 121 participants in the study. Students ages ranged from

17 to 27 ( $M = 19.69$ ,  $SD = 2.190$ ). Most students self-identified as White, Non-Latino (90%) with the remaining self-identified as Latino (4%), Asian American (4%), and African American (2%). The majority of participants self-identified as straight/heterosexual (96%) with the remaining identifying as bisexual (1.7%) and gay (1%). The average height of participants was 71.39 inches and average weight was 175 pounds. Participants had an average Body Mass Index of 23, which is within the normal range.

### **Instrumentation**

The effectiveness of the program was determined by measurable changes in media literacy (i.e., media pressure, media information, and internalization of muscular ideal), self-objectification, and body image attitudes. To determine whether or not the program had any effect on psychological distress, symptoms of depression, anxiety, and stress were measured. The following is information regarding the instrumentation that will be utilized to assess each of these domains.

#### **Media Literacy**

Media literacy was a dependent variable in the study and was assessed using the Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ-3; Thompson, van den Berg, Rehirg, Guarda, & Heinberg, 2004) for males. Media literacy is a broad categorization of potential skill development outcomes. For the purpose of this study, media literacy was measured as the amount of creditability participants give media information about attractiveness and health, how pressured participants feel to look like the media ideals, and to what degree participants have internalized the media's male body ideal.

The SATAQ (see Appendix A) measures several sociocultural attitudes including information, media pressures, internalization-general and internalization-athlete using a 5-point Likert scale (from “definitely disagree” to “definitely agree”). The first area measured is how creditable participants find the media’s information concerning physical attractiveness and health. The next sub-scale assesses how pressured participants feel by the media to strive for cultural ideal of physical appearance. The internalization-general subscale appraises the level of endorsement and acceptance of unrealistic ideal images. Lastly, the internalization-athlete subscale assesses endorsement and acceptance of an athletic body ideal.

The SATAQ has been commonly used within the media literacy prevention program literature (e.g., Coughlin, & Kalodner, 2006; Irving, DuPen, & Berel, 1998; Watson, & Vughn, 2006). Originally designed to assess women’s attitudes, previous editions of the SATAQ have been adapted for men (Smolak, Levine, & Thompson, 2001) as well as the most recent version (Karazsia & Crowther, 2008). The adaptation for men includes changing language that emphasized thin ideals to language that emphasizes muscular ideals. Karazsia and Crowther (2008) conducted a confirmatory factor analysis of the alternative version and found that the four-factor model fit men’s data. They also reported high internal consistency reliability for the four subscales: information ( $\alpha = .95$ ), pressure ( $\alpha = .92$ ), internalization-general ( $\alpha = .94$ ), and internalization-athlete ( $\alpha = .85$ ). Correlations between subscales ranged from .23 to .55, with the two internalization subscales (i.e., internalization-general and internalization-athlete) having the most overlap. The SATAQ-3 also displayed convergent validity with the Eating Disorder Inventory-Body Dissatisfaction (EDI-BD) and Drive for Thinness (EDI-DT) subscales.

For this study, each of the subscales of the SATAQ-3 will be used rather than the total score.

### **Body Image Attitudes**

Body image attitudes were a dependent variable in the study. The 24-item Male Body Attitudes Scale (MBAS; Tylka, Bergeron, & Schwartz, 2005) was used to assess body image attitudes (see Appendix B). The MBAS measures men's body attitudes related to overall body characteristics, muscularity, body fat, and height. To date, the MBAS is the only comprehensive body image attitudes instrument designed specifically for men. While other instruments have been developed for assessing men's muscle satisfaction (see Cafri & Thompson, 2007), the MBAS measures multiple dimensions of body image attitudes. MBAS contains 24 items with six Likert response options (i.e. never, rarely, sometimes, often, usually, and always). Higher scores on the MBAS reflect more negative body attitudes.

The MBAS has demonstrated internal consistency reliability ( $\alpha = .91$ ) as well as test-retest reliability ( $r = .91$ ). The authors also demonstrated convergent validity with the Body Esteem Scale, Drive for Muscularity Scale, and Swansea Muscularity Attitudes Questionnaire. In addition, the MBAS total score has shown concurrent validity with eating disorder symptomatology.

Five of the questions were removed because such questions tap into trait rather than state qualities. For instance, an item asks, "Has eating sweets, cakes, or other high calorie food made you feel fat or weak?" These questions reflect a historical account of body image attitudes that appear less sensitive to immediate changes in body image attitudes. All other items were left in their original form. Please refer to Appendix B for

questions and those that will be excluded from the study. For this study, the full scale MBAS score as well as the Body Fat Attitudes and Muscle Attitudes subscales were used. For this study, the altered MBAS demonstrated internal consistency reliability ( $\alpha = .86$ ).

### **Self-Objectification**

Self-objectification was a dependent variable in the study. The 10 item Self-Objectification Questionnaire (SOQ; see Appendix C) was used to assess men's level of self-objectification (Fredrickson, Roberts Noll, Quinn, & Twenge, 1998). The SOQ asks participants to rank order a list of body attributes according to how important each is to their physical self-concept from most impact (rank=0) to least impact (rank=9). Ten body attributes are listed with five representing appearance based attributes (i.e., physical attractiveness, sex appeal, measurements, muscle tone, weight) and five representing competence based attributes (i.e., health, strength, energy level, physical fitness level, and physical coordination). Appearance scores are then subtracted from competence scores creating a total score which ranges from -25 to 25. Higher scores indicate greater self-objectification. The SOQ has demonstrated satisfactory validity by correlating with similar constructs such as the Appearance Anxiety Questionnaire ( $r = .52, p < .01$ ) and the Body Image Assessment ( $r = .46, p < .01$ ; Noll & Fredrickson, 1998). No test-retest reliability for the SOQ has been determined, although the authors indicate a need for such examination (Noll & Fredrickson, 1998).

### **Negative Affect**

Due to the comorbidity between body image disturbances and mood and anxiety disorders (Steiger & Seguin, 1999), the Depression Anxiety and Stress Scale (DASS-21;

Lovibond & Lovibond, 1995) was used to account for mood and anxiety concerns.

DASS-21 measures the negative emotional symptoms in three areas including depression, anxiety, and stress (see Appendix D). Participants indicated how much a given statement is true for them. The DASS-21 assesses various symptoms related to depression, anxiety, and general stress. Higher scores on the DASS-21 represent increased severity of psychological distress.

Lovibond and Lovibond (1995) confirmed the factor structure of the measure by demonstrating moderate correlations with other scales ( $\alpha > .81$ ). Henry and Crawford (2005) more recently conducted a confirmatory factor analysis using a nonclinical sample and confirmed the three factor structure. They found that the three subscales (i.e., depression, anxiety and stress) were also substantially related to the common factor of general psychological distress. The internal consistencies of the three sub-scales and total score were as follows: depression ( $\alpha = .88$ ), anxiety ( $\alpha = .82$ ), stress ( $\alpha = .90$ ), and total score (.93).

### **Presentation Feedback**

Qualitative feedback was gathered from participants through a questionnaire. Participants will be asked to provide written responses the following questions: (1) In what way, if any, was this program useful to you? (2) In what way, if any, was the program not useful to you? (3) What, if anything, did you learn in today's program? Participants were given the opportunity to give general comments on the feedback form. The questionnaire has three questions per page allowing for ample space to respond thoroughly to the question. The questionnaire serves several purposes. First, the questionnaire allows participants the opportunity to provide qualitative feedback above

and beyond the quantitative measures. Secondly, responses to these questions help provide a richer context for quantitative analyses. Lastly, this feedback served to address possible changes needed for future implantations of the program.

## **Procedures**

### **Selection of Participants**

Following approval from the Institutional Review Board, participants were invited to participate in the study via the department of psychology's subject pool system (i.e., Experimetrix system). Experimetrix is an electronic subject pool system that allows university students to sign up for research participation. Advertisement for the study was displayed in the Experimetrix system. Students were encouraged to participate in the subject pool either as a course requirement or extra credit. In return for their participation, students applied their research participation to any course that accepted research credits.

Potential participants were given a link to Survey Monkey, a secured website that collects data using password protected software and secured networks. Informed consent information was provided upon initiating the survey and participants were asked to acknowledge their understanding of the informed consent form (see appendix E). Participants then complete the instruments in the following order: Demographic information questionnaire, SATAQ-3, MBAS, SOQ, and DASS-21. Specific instructions were given to participants to respond to items as they think and feel at the present moment.

Following the completion of the pre-measures, participants were randomly assigned to a wait-list control group or a treatment group. An e-mail was sent to the

participants selected to the wait-list control indicating an opportunity to attend a program on men's body image, fitness, and health at the end of the semester, which was approximately eight to ten weeks later (see Appendix F). The e-mail also notified wait-list participants that the researcher would be contacting them to complete more surveys four weeks after their initial surveys were completed. Post measures for the control group were given electronically in the following order: SATAQ-3, MBAS, SOQ, and DASS-21. Specific instructions were given to participants to respond to items as they think and feel at the present moment.

Participants selected for the treatment group were informed of their needed participation in a men's body image, fitness, and health program (see Appendix G). The intervention session was three to five weeks after initial measures were completed. Eight program times and dates were offered. All eight proposed times were used in the study with the smallest group containing 7 participants and the largest group containing 11 participants. Participants were encouraged to e-mail the researcher which program they plan on attending. Participants then attended one 90 minute program as described later. The psychoeducational program was conducted at a university classroom with multimedia equipment. Upon finishing the program, participants were given a paper version of measures in the following order: SATAQ-3, MBAS, DASS-21, and SOQ. Specific instructions were given to participants to respond to items as they think and feel at the present moment. Lastly, participants were given a handout that summarizes the message of the presentation, tips for improving body image, and local and national resources on men's body image concerns (see Appendix H). Referral information was given to students that include contact information for the university counseling center, the



counseling psychology program's clinic, and the clinical psychology program's clinic. In addition, a nationwide eating disorder therapist online directory was provided.

### **Description of the Program**

The prevention program was developed out of the growing body dissatisfaction among young men. This researcher is the author of the program with materials taken from several sources. Given the rising number of men becoming dissatisfied with their bodies as well as the cultural taboo of discussing such concerns (e.g., Andersen et al., 2000; Pope et al., 2000) this researcher developed the program specifically for a college campus community. The program was adapted from body image prevention programs for women using recent research specific to men's body image concerns (e.g., Coughlin & Kalodner, 2006; Irving, DuPen, & Berel, 1998; Levine & Smolak, 2006). Thompson, Heinberg, Altabe, and Tantleff-Dunn (1999) emphasized that prevention programs need to promote acceptance of diverse body shapes and discuss the socio-cultural pressure to adhere to culturally distorted notions of beauty and attractiveness. Their recommendation became the foundation of the psychoeducation program used in this study.

The objectives of the program were: (1) to provide a definition of the lean-muscular ideal and how such ideals have changed across history, (2) to provide information on how modern media constructs images of the lean-muscular ideal, (3) to explain how physiology limits the malleability of the body (e.g., natural distribution of weight, height, and size, biological limitations to changing the body, etc.), (4) to appreciate and accept the diversity of body shapes and sizes, (5) defuse the cultural coupling of masculinity and muscularity in contemporary society, and (6) illustrate that health cannot be assumed by appearance alone.

Previously the program was given on eight separate occasions to students and two occasions to university staff and faculty prior to the current research. The repetitions of delivery aided in a more uniform presentation style and consistency. Approximately 300 people in total participated in the program. In order to ensure participants in the proposed research have not attended previously, subjects were screened for prior participation and excluded from the current research.

The program is comprised of one 90 minute session. The presentation uses audio and visual presentation materials in conjunction with a presenter presenting information and asking questions of the group. The first part of the presentation provides information on the occurrence of body image dissatisfaction among men. The intention of providing information about the prevalence of body dissatisfaction in men is to specifically debunk the myth of body image issues as a “woman’s concern.” While previous authors have noted possible dangers to normalizing body image concerns with women (Thompson, Heinber, Altabe, & Tantleff-Dunn, 1999), normalizing body image problems with men may evoke more positive help seeking attitudes (Andersen, Cohn, & Holbrook, 2000; Addis & Mahalik, 2003). Addis and Mahalik (2003) assert that men tend to have unfavorable help seeking attitudes when they perceive a lack of normativeness of the problem among male peers.

The next section of the program informs men about the dual pathway of body image concerns. Information is presented about the drive for thinness and the drive for muscularity. Participants are also presented with how culturally constructed ideals have emphasized a constricted ideal male body. Information from Grogan and Richards’ (2002) focus groups with men is presented. Male participants are then taught that college

men on average have an ideal body that is drastically larger in musculature and slimmer in body fat than their current body composition. The consequences of body image dissatisfaction are subsequently discussed. Here students are presented information about the various body image disorders including eating disorder and muscle dysmorphic disorder.

Another section of the presentation is devoted toward socio-cultural ideals and media pressures. A series of magazine covers from *Men's Health*, *Muscle & Fitness*, and *Men's Workout* along with a few books marketing muscular growth and body fat loss strategies are presented. The images and messages of the covers are deconstructed to emphasize the metamessages behind the magazines and books. The metamessages emphasized are: obtaining a muscular and lean body is easy and quick, being lean and muscular will grant a person sexual partners and increased sexual performance, and that "proper" exercise and diet will result in a lean, muscular physique. The presenter describes to participants how these metamessages are inaccurate and mislead consumers for economic profit. The presenter exemplifies how the images are created through lighting, camera, and digital manipulation. This section illustrates that the physical bodies advertised and the messages associated with them are distortions of reality. Participants are given information about body set points and how each person's body has a limitation in body shape and weight malleability.

A brief clip from the documentary *Bigger, Stronger, Faster* (Buono, Czarnecki, Engfehr, Rawady, & Bell, 2008) is shown. The clip examines the director's experience growing up influenced by muscular icons such as Arnold Schwarzenegger and Hulk Hogan. He discusses how he participated in competitive weightlifting in order to emulate

these icons with the hope to have a similar physical appearance. Weightlifting resulted in muscle and size gains but he was unable to obtain a physique similar to his childhood icons. The clip also shows a montage of cultural images and slogans since the 1980's that emphasize the lean, muscular male body.

After the media clip is shown, the presentation focuses on the influence of body building and steroids on men's body image concerns. Information about the known physical and psychological risks associated with steroid use is presented. In addition, information is given about the lack of regulation within the dietary supplement industry and the unknown risks of using such substances. Another clip from *Bigger, Stronger, Faster* is presented. In this six minute clip, the director interviews men's body image expert Dr. Harrison Pope (e.g. Pope, Phillips, & Olivardia, 2000). Pope discusses the romanticizing of steroids in American culture and how increasingly muscular men have become in the media. The clip also acknowledges the distortions of the dietary supplement industry. The director shows that the dietary supplement industry distorts reality by promising results whereby the models are often steroid users. After the clip, the presentation discusses how the so-called results of dietary and exercise products can be manipulated. An image is shown of a person's before and after photos. The time span between the photos was two minutes. The image was deliberately altered to show that weight loss and muscle gain products are often deceiving.

Information is presented that challenges participants to consider health "beyond skin deep." Participants are shown how the media often connotes health by displaying lean-muscular ideals. The presenter challenges notions that all healthy bodies look like

the mesomorphic ideal. Here information challenges assumptions that how the body appears is indicative of a person's overall health.

Participants are given “take-home messages” based on the information presented in the program (see Appendix H). The information given to participants is summarized as follows: (1) accepting one's body is important for esteem and wellness, (2) many of the male bodies in the media are distortions of reality, (3) there are industries that economically profit from making you feel insecure about your body, (4) masculinity is not defined by the way you look, (5) it is okay to look okay, (6) health and fitness are not synonymous with a lean-muscular body—it is possible to be healthy and fit and not look like this. These take home messages are heavily influenced by Pope et al.'s (2000) recommendations in their book.

The end of the presentation offers students an opportunity to ask questions. The question and answer part of the presentation offers an opportunity for clarification on information presented. Participants typically asked questions of clarification on the information or made comments about what they learned.

### **Data Analysis**

Table 1 illustrates both the independent and dependent variables used in the randomized control/treatment design. A preliminary series of univariate analyses were conducted to determine if significant differences existed between the treatment group and wait-list group in any of the demographic variables. These analyses were to assess if the randomization of participants produced no measurable group differences with regard to the dependent variables. To address the eight research hypotheses, a series of 2x2 mixed factorial analyses were conducted with each of the dependent variables with pre- and

post- intervention data. Each analysis tested main effects, interactions, and simple effects.

Table 3.1

*Summary of Experimental Design*

Independent Variables	Dependent Variables
Treatment	Media Literacy (SATAQ-3)
Treatment Group	Intern.-General
Wait-List Control	Intern.-Athletic
	Pressure
Temporal Variable	Information
Pre-Intervention	
Post-Intervention	Body Image (MBAS)
	MBAS total score
	Muscularity
	Body Fat
	Self-Objectification (SOQ)
	SOQ total score
	Psychological Distress (DASS)
	DASS total score

Note. SATAQ-3 = Sociocultural Attitudes Toward Appearance Questionnaire-3. MBAS = Male Body Image Attitudes Scale. SOQ = Self Objectification Questionnaire. DASS-21 = Depression, Anxiety, and Stress Scale 21 question version.

Qualitative feedback was coded and analyzed into general themes. The themes were used as part of a post hoc analysis to assist in the interpretation of quantitative statistical analyses. Furthermore, qualitative data were also used to make important alterations in the program for future use.

## CHAPTER 4

### RESULTS

The following chapter provides the results from quantitative and qualitative data gathered during the study. First, outlier and data distribution analyses are explained followed by descriptive statistics of participant exercise and diet behaviors. Quantitative analyses used for the program evaluation are provided. Lastly, the qualitative themes drawn from the brief feedback questions are provided.

#### **Preliminary Analyses**

##### **Univariate Outlier Analysis and Distribution Analysis**

A univariate outlier analysis was conducted using Hoaglin, Mosteller, and Tukey's (1983) procedure. Based upon this analysis, no outliers were found in the data. Furthermore, skewness and kurtosis for all the dependent variable measures revealed a normal distribution of scores. After these analyses were conducted, demographic frequencies were gathered.

##### **Participant Exercise and Diet Characteristics**

The majority of the men in the sample indicated frequent cardiovascular workouts (76.8%). Specifically, participants indicated engaging in cardiovascular workouts daily (10%), 4-5 times per week (16%), 2-3 times per week (33%), and once per week (15%). The majority of the men also endorsed frequent weight lifting behaviors (62%). Participants engaged in weight lifting daily (6%), 4-5 times per week (23%), 2-3 times per week (24%), and once per week (8%). Most of the men in the sample also endorsed frequent engagement in sports/athletics (82%). Participants engaged in sport daily (6%), 4-5 times per week (15%), 2-3 times per week (37%), and once per week (23%).

Eighteen percent of men in the sample indicated being on a diet. Forty-six men (38%) stated that they were currently taking dietary supplements of some kind. The most common supplements taken were: protein powder (36%), creatine (19%), and amino acid (12%).

### **Between Group Differences**

While randomization in the study design provides some safeguards for confounding variables, a few preliminary analyses were conducted to ensure that effective randomization occurred. Chi-square analyses indicated no significant differences between the treatment and control groups in ethnicity, sexual orientation, diet, supplement use, cardio workout behaviors, weightlifting, and sports participation. Results using ANOVA also indicated no significant differences between the treatment groups with regard to age, height, and weight.

### **Program Evaluation Results**

The following section provides the analyses of data gathered at pre- and post-intervention. The section is divided into those results pertaining to media literacy, body image attitudes, self-objectification, and general psychological distress. Table 4.1 summarizes all of the means, standard deviations, and internal consistency reliability notations for each of the measures used in the study. Please refer to this table throughout this section on program evaluation results. Table 4.2 includes all correlations of measures used in the study.



Table 4.1

*Mean (SD) and Internal Consistency Reliability of Measures*

	Pre-Intervention		Post Intervention		$\alpha$
	Control	Treatment	Post-Control	Post-Treat	
Media Info.	19.94(7.97)	21.12(8.25)	21.17(7.50)	18.34(6.91)	.95
Media Pressure	17.94(7.65)	17.88(6.70)	19.37(7.21)	18.55(6.93)	.93
Intern.-Gen.	23.10(8.08)	23.52(7.48)	24.43(7.17)	21.22(7.29)	.93
Intern.-Ath.	17.05(4.90)	17.22(4.19)	17.79(4.13)	15.34(4.21)	.86
Body Attitudes	58.22(15.39)	56.91(15.97)	58.40(16.42)	51.74(14.76)	.86
Muscle Att.	32.78(10.43)	32.76(9.68)	33.08(11.15)	29.02(9.98)	.92
Body Fat Att.	16.40(6.46)	15.03(6.18)	16.16(6.10)	14.41(5.20)	.81
Self-Object.	-3.33 (11.51)	-1.26(12.04)	-4.02(12.56)	-6.32(11.77)	--
Psych. Distress	9.48(7.56)	11.41(9.83)	10.98(10.44)	9.17(7.97)	.92

Table 4.2

*Correlation Matrix of Measures*

	1	2	3	4	5	6	7	8	9
1. Media Skepticism	--								
2. Media Pressure	.68**	--							
3. Internalization-Gen.	.73**	.74**	--						
4. Internalization-Ath.	.54**	.56**	.74**	--					
5. Body Attitudes	.40**	.55**	.50**	.48**	--				
6. Muscle Att.	.38**	.47**	.48**	.50**	.89**	--			
7. Body Fat Att.	.19*	.40**	.28**	.23*	.75**	.41**	--		
8. Self-Object.	.27**	.24**	.22**	.25**	.38**	.27**	.22*	--	
9. Psych. Distress	.11	.31**	.15	.13	.40**	.33**	.35**	.07	--
10. Media Skept. Post	.62**	.54**	.48**	.31**	.56**	.32**	.23*	.15	.21*
11. Media Pressure Post	.40**	.72**	.46**	.36**	.35**	.42**	.41*	.19*	.31**
12. Intern.-Gen. Post	.52**	.57**	.69**	.62**	.49**	.52**	.37**	.27**	.20*
13. Intern.-Ath. Post	.32**	.43**	.53**	.62**	.55**	.48**	.28**	.11	.15
14. Body Attitudes Post	.39**	.58**	.54**	.49**	.49**	.75**	.61**	.23**	.35**
15. Muscle Attitudes Post	.37**	.50**	.51**	.49**	.82**	.78**	.35**	.22**	.28**
16. Body Fat Attitudes Post	.23*	.43**	.31**	.27**	.71**	.37**	.83**	.16	.31**
17. Self-Object. Post	.15	.16	.16	.12	.26**	.35**	.32**	.56**	.16
18. Psych. Distress Post	.10	.30**	.53**	.13	.32**	.25**	.28**	.01	.66**

Note: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

## Media Literacy

To determine the effect of the intervention on media literacy, a 2x2 mixed factorial design was used for each of the media literacy areas (i.e., media skepticism, media pressure, internalization-general, and internalization-athletic).

**Media skepticism.** The mixed factorial analysis revealed a significant Treatment x Temporal interaction ( $F(1, 119) = 11.623, p < .001$ ) indicating media skepticism scores improved more for some group(s) than for others. A Fisher's least significant difference (LSD) procedure was used to determine statistically significant comparative effects. The Fisher's LSD minimum mean difference was  $LSD(119) = 1.663$  for media skepticism. This means that those cell mean differences that are at or above the Fisher's LSD are considered statistically significant. Next, cell mean differences were calculated for both with-in group change (i.e., pre- and post-intervention scores) and between group differences (i.e., control and treatment at post scores).

Figure 4.1 illustrates the media skepticism scores for both the treatment and control group from pre- to post-intervention. Please note that lower scores indicate higher media skepticism. There were no statistically significant changes in pre- to post-intervention media skepticism scores for the control group. There was, however, a significant change in media skepticism scores for the treatment group from pre- to post-intervention (*mean difference (md)* = 2.78,  $p < .05$ ;  $\eta = .395$ ). Specifically, those in the treatment group had a significant increase in media skepticism after the intervention. Further analysis revealed that those in the treatment group had significantly higher media skepticism at post-intervention than the control group ( $md = 2.83, p < .05$ ;  $\eta = .295$ ).

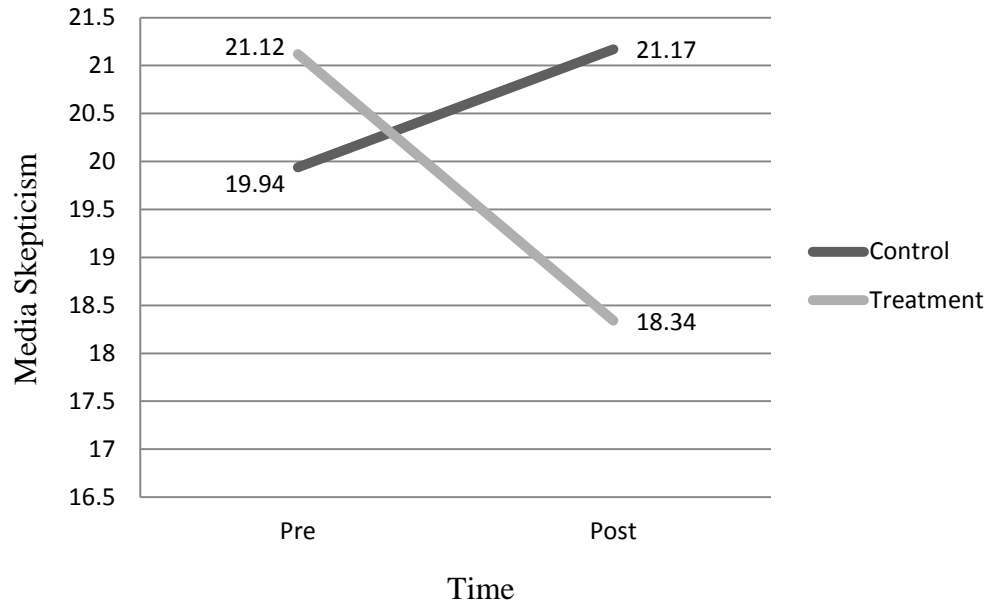


Figure 4.1: Results of 2x2 Mixed Factorial-Media Skepticism

**Media pressure.** The next analysis concentrated on participant's scores related to media pressure. There were no significant main effects regarding media pressure scores  $F(1, 119) = .608, p = .437$ ). Furthermore, no significant interaction was found between the treatment condition and temporal condition with media pressure scores. Figure 4.2 illustrates media pressure scores for both the treatment and control group from pre- to post-intervention. The conclusion from this analysis revealed that the intervention had no discernible effect on participant's felt pressure to have a lean muscular body.

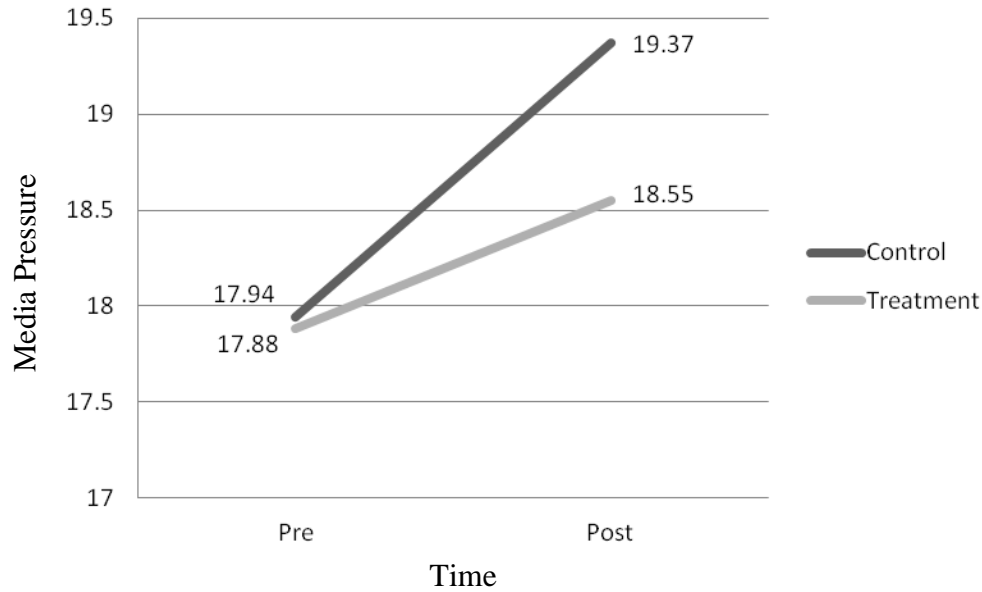


Figure 4.2: Results of 2x2 Mixed Factorial-Media Pressure

**General internalization.** Next, data were analyzed to determine if any discernible changes occurred in men's internalization of body ideals. The first analysis focused on general internalization of the lean-muscular ideal. Figure 4.2 illustrates the results found for general internalization. The 2x2 factorial analysis revealed a significant Treatment x Temporal interaction ( $F(1,119) = 12.352, p = .001$ ) indicating that general internalization improved more for some than for others. A Fisher's LSD minimum mean difference score ( $LSD = 1.457, p < .05$ ) was calculated to evaluate simple effects. Next, cell mean differences were determined. For the treatment group, a significant decrease in general internalization scores resulted from pre- to post-intervention ( $md = 2.3, p < .05; \eta = .376$ ). For the control group, however, no significant change in general internalization scores was observed.

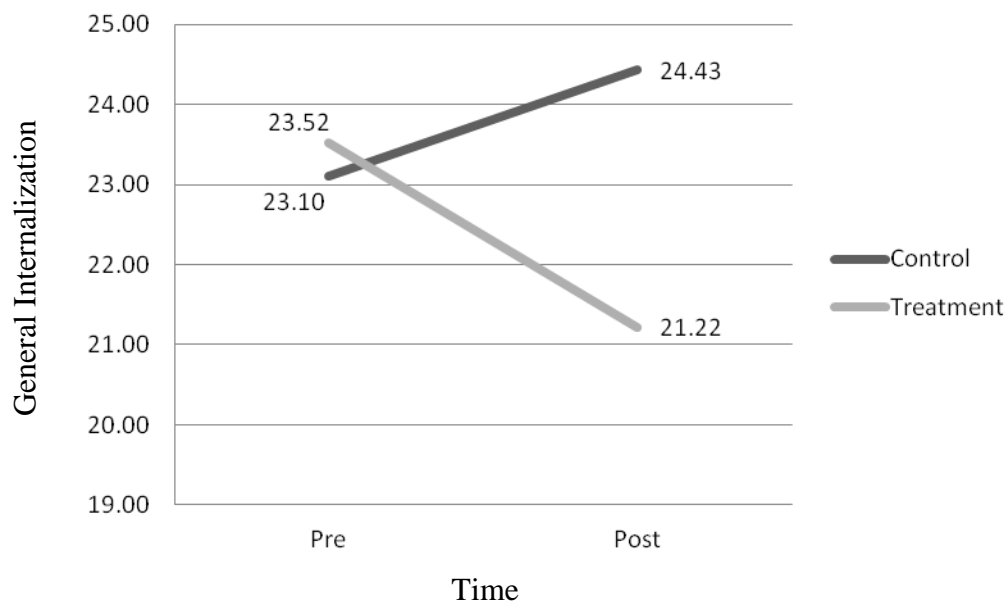


Figure 4.3: Results of 2x2 Mixed Factorial-General Internalization.

A between-group comparison of pre- and post-intervention scores was conducted. At pre-intervention, there were no differences between the treatment group and the control group. However, those in the treatment group had statistically significant lower general internalization scores than the control group at the post-intervention collection ( $md = 1.33, p < .05; \eta = .372$ ). Taken together, those men who were in the intervention had a significant reduction in internalization of the lean-muscular ideal from pre- to post intervention. These men also had significantly less internalization compared to the control group at post-intervention.

**Athletic internalization.** A 2x2 factorial analysis was conducted for athletic internalization scores. Figure 4.3 displays the results of the following analyses. A significant Treatment x Temporal interaction was found,  $F(1, 119) = 15.577, p < .001$ , in athletic internalization scores. Consequently, a Fisher's LSD critical value ( $LSD = .939, p < .05$ ) was calculated to analyze cell mean differences. First, a significant reduction in

athletic ideal internalization was observed in the treatment group from pre- to post-intervention scores ( $md = 1.88, p < .05; \eta = .457$ ) whereas the control group did not have any statistically significant changes in scores. A between-group comparison was also conducted. No statistically significant difference were detected the treatment and control groups in athletic internalization scores at pre-intervention. At post-intervention, however, those in the treatment group had statistically significant lower athletic internalization scores compared to the control group ( $md = 2.45, p < .05; \eta = .424$ ). These results indicated that those in the treatment group had a significant reduction in athletic ideal internalization from pre- to post-intervention and had significantly less internalization at post-intervention compared to the control group participants.

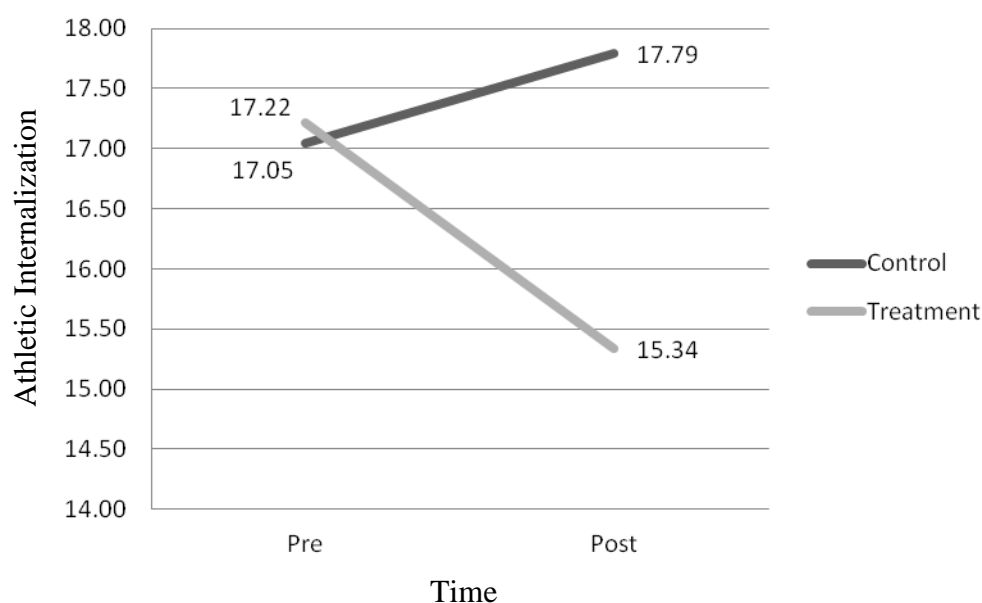


Figure 4.4: Results of 2x2 Mixed Factorial-Athletic Internalization.

### Body Attitudes

The next results are those that addressed participants' body attitudes. Separate analyses were conducted for general body attitudes, muscle attitudes, and body fat attitudes respectively.

**General body attitudes.** A 2x2 factorial was conducted for general body attitudes. Figure 4.4 illustrates the results that follow. A statically significant Treatment x Temporal interaction ( $F(1, 119) = 10.996, p < .001$ ) indicated that some group(s) had more of a significant improvement of body attitudes than others. A Fisher's LSD ( $LSD = 2.278, p < .05$ ) statistic was calculated to determine significant differences in cell means. The post-hoc analysis revealed that those in the control group had no significant changes in body attitudes from pre- to post-intervention. The treatment group, however, demonstrated significant improvement in general body attitudes from pre- to post-intervention ( $md = 5.17, p < .05; \eta = .504$ ). Additionally, while there were no differences in body image attitudes between the treatment and control group at pre-intervention, the treatment group had statically more positive body image attitudes compared to the control group at post-intervention ( $md = 6.66; p < .05; \eta = .469$ ).

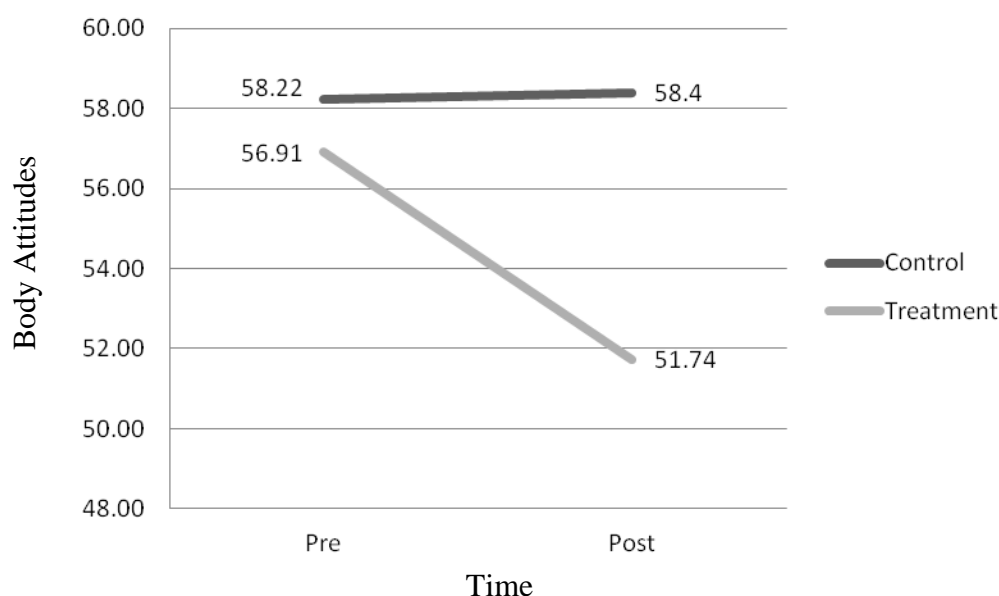


Figure 4.5: Results of 2x2 Mixed Factorial-Body Attitudes.



**Muscle attitudes.** A 2x2 factorial analysis was conducted for participants' muscle attitudes. Figure 4.5 illustrates the results. A significant Treatment x Temporal interaction ( $F(1, 119) = 11.553, p < .001$ ) indicated that for some group(s) there was more improvement in muscle attitudes than others. A Fisher's LSD was calculated to determine the critical value for group mean differences ( $LSD = 1.68, p < .05$ ). The post-hoc analysis revealed that the treatment group had a significant improvement of muscle attitudes from pre- to post-intervention ( $md = 3.74, p < .05; \eta = .497$ ), whereas the control group had no significant change to muscle attitudes. Furthermore, there were no statistical differences between muscle attitudes between the treatment groups at pre-intervention. At post-intervention, however, the treatment group had significantly more positive muscle attitudes compared to the control group ( $md = 4.06, p < .05; \eta = .402$ ).

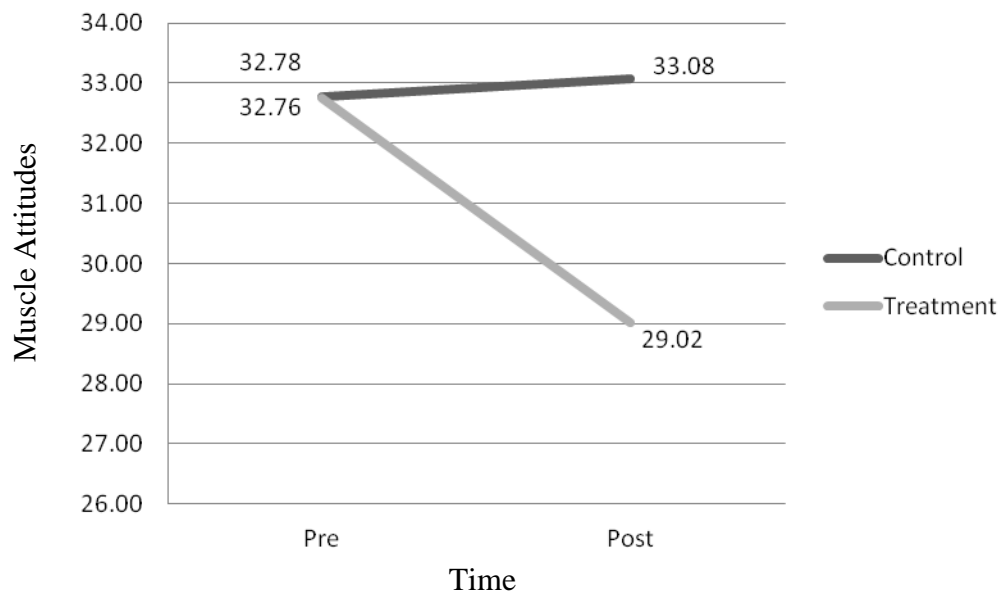


Figure 4.6: Results of 2x2 Mixed Factorial-Muscle Attitudes.

**Body fat attitudes.** A factorial analysis was conducted to determine changes in body fat attitudes. Figure 4.6 displays the results of the analysis of body fat attitudes. No significant Treatment x Temporal interaction was found with regard to body fat attitudes. Furthermore, no statistically significant differences were found between the treatment and control groups. Results from this analysis suggest that body fat attitudes were not altered as a result of the intervention.

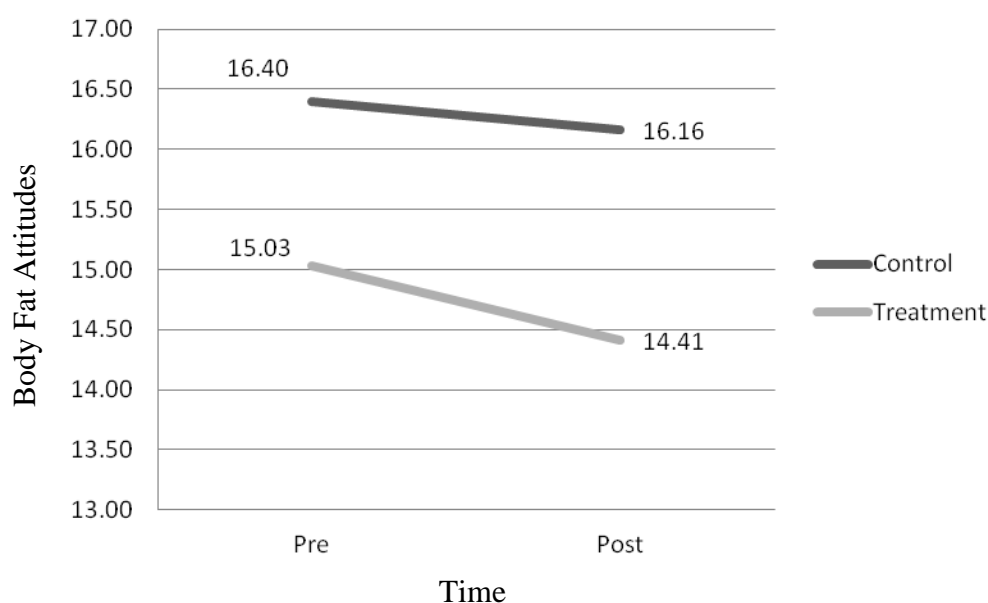


Figure 4.7: Results of 2x2 Mixed Factorial-Body Fat Attitudes.

### Self-Objectification

Self-objectification was another target of the intervention. A 2x2 factorial analysis was conducted to determine if any changes in self-objectification had occurred. Figure 4.7 illustrates the results of self-objectification scores. Please note that lower scores indicate lower self-objectification. A significant Treatment x Temporal interaction was found ( $F(1, 119) = 4.738, p = .032$ ) indicating that self-objectification improved more for some than for others. A Fisher's LSD was calculated ( $md = 2.835, p < .05$ ). Those in the control group had no statistically significant change in self-objectification from pre-

to post-intervention. Men in the treatment group, however, had significant improvement in self-objectification ( $md = 5.06, p < .05; \eta = .418$ ). Comparing the treatment groups revealed no significant differences between groups at pre-intervention. A between group analysis revealed no statistically significant differences between the treatment and control group at post-intervention.

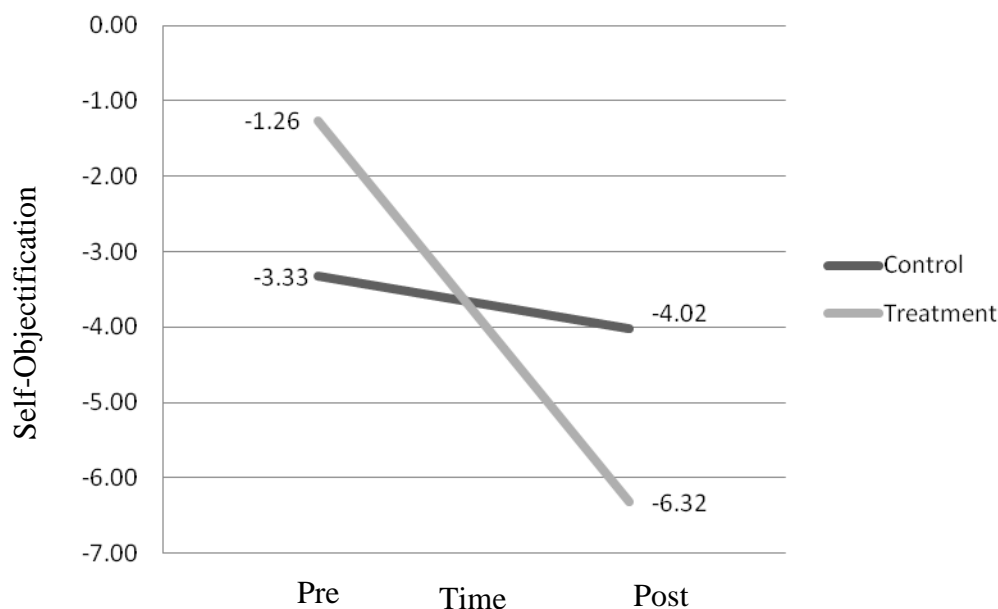


Figure 4.8: Results of 2x2 Mixed Factorial-Self-objectification.

### Negative Affect

To determine the influence of the intervention on other psychological distress, the DASS-21 was used. A 2x2 factorial was used to determine any significant changes in DASS scores. Figure 4.8 displays the results of DASS scores. A significant Treatment x Temporal interaction ( $F(1, 119) = 8.121, p < .005$ ) suggests that depression, anxiety, and stress scores improved more for some than for others. A Fisher's LSD was calculated to determine the critical value of mean differences between groups ( $md = 1.859, p < .05$ ). Men in the control group showed no statistically significant differences in mental distress from pre- to post-intervention. Men in the treatment group, however, showed a

statistically significant reduction in psychological distress from pre- to post-intervention ( $md = 2.24, p < .05; \eta = .296$ ). A between group analysis revealed interesting results. First, a significant difference was found between the control and treatment groups at pre-intervention. Specifically, men in the treatment group had significantly more distress than those in the control group ( $md = 1.93; p < .05$ ). Since the groups were randomized into treatment groups, it is assumed that these differences are merely a chance occurrence. At post-intervention, however, the groups did not differ in mental distress scores. Taken together, it appears that those men who were in the treatment group showed significant improvements in depression, anxiety, and stress compared to those who were in the control group. However, since the men in the treatment group had significantly more distress at the onset of the program, significant differences were not found between the treatment groups at post-intervention.

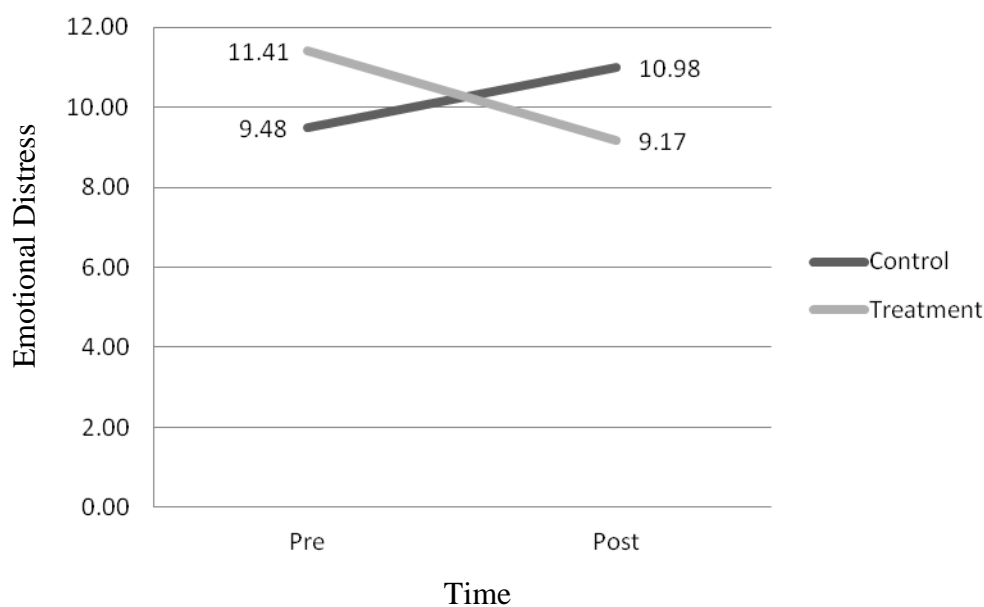


Figure 4.9: Results of 2x2 Mixed Factorial-Depression, Anxiety, and Stress scores.

## **Qualitative Feedback Results**

Participants in the treatment group were asked to provide written feedback.

Participants were asked to respond to the following questions: (1) In what way, if any, was this program useful to you? (2) In what way, if any, was the program not useful to you? (3) What, if anything, did you learn in today's program? Written responses were then typed and organized into themes. The following represents the emerging themes of qualitative outcomes resulting from the written responses. The data will be presented in two sections. The first section reflects those outcomes that participants felt they gained, which included personal and educational outcomes. The second section describes the constructive feedback about non-useful and less useful aspects of the intervention.

### **Personal Outcomes**

Participants in the prevention intervention described a number of developments gained as a result of the presentation. All of the responses for questions #1 and #3 were grouped together. This researcher read and organized those responses that seemed similar, representing a particular theme. Four themes emerged from the analysis including: (1) perception and attitude change, (2) re-evaluating notions of health, (3) greater media awareness, and (4) increased awareness of men's body image concerns.

**Perception and Attitude Change.** The first theme that emerged was a change in attitude or the adoption of a more body accepting perspective. Many of the men in the study indicated that their relationship with their own body had improved in some manner. Some of the men in the study had indicated an improvement in body image while others indicated a new goal toward body acceptance. One participant noted that he had learned, "How to address my body issues in the modern world. I need to reconsider my

relationship with my body.” Another participant noted what he would take away from the intervention was “To never feel ashamed if I don’t have 2% body fat and excessive muscle.” Mention of body acceptance was common among those who talked about attitude changes.

Participants also acknowledged the difficult process of accepting one’s own body appearance. While the intervention presented body acceptance as an ideal, men in the study often commented on the difficulty in obtaining body acceptance. One participant shared, “I now know that I must learn to appreciate my body. I still struggle, however, finding that acceptance within myself.” This participant highlights the difficulty in coming to an accepting place with regard to our body image. Careful analysis of his language, however, reveals a contemplative stance toward body acceptance. He is considering movement toward appreciating his body.

Conversely, some participants discussed how the intervention highlighted a concern that perhaps they had not fully acknowledged previously. For instance, one participant discussed briefly his own struggles with body image issues, “Today I learned that I myself struggle way too much with being overly concerned about my physical attractiveness and muscle definition.” Developing a greater awareness about these concerns is vitally important to a successful prevention program. Because men are often caught in a double bind around these concerns, they may struggle with these concerns without having a language or insight into the nature of their distress (Pope et al., 2000).

The shifts in body attitudes indicated from the qualitative feedback converge with the quantitative data presented earlier. Specifically, they both highlight an improvement in body image attitudes. While men in the study may not have found psychological

acceptance of their bodies, they did experience a shift toward an improved attitude toward their bodies. The quantitative data revealed that general body attitudes and muscle attitudes improved while body fat attitudes did not. Many comments made mention of an improved attitude toward participants' muscularity. There were no mentions of body fat in the qualitative feedback.

**Health Focus.** Some participants wrote about a reprioritizing of values to include health over body image. Participants often wrote about how they were considering their body appearance in conjunction with their overall health rather than on appearance alone. For instance, one participant said, "Obviously I learned a lot about what it actually means to be healthy as well as some ways I can integrate that into my self-image to help myself feel better. I need to consider balancing notions of health more than simply worrying about what I look like." The balancing between body appearance and physical health seemed to be an important point that many of the men internalized from the intervention. One of the men in the group wrote of the intervention stating, "It [the presentation] is a positive reinforcement in showing how body image isn't everything-To be happy with your state, but to retain a healthy lifestyle." Men in the study would often comment on how they wanted to re-evaluate their health goals. Some of the men in the study became more aware of the paradox that can emerge from pursuing the muscular ideal. This paradox is illustrated when men sacrifice their health by engaging in health degrading behaviors in pursuit of the body ideal. For instance, one participant said, "For me getting a muscular body is not worth hurting my body in the process."

Participants also mentioned frequently that they had begun to separate physical health from body appearance. A participant said, for example, what he was taking away

from the program was, “Do not abuse my body by taking steroids or engaging compulsive workouts. I tend to workout everyday regardless of my ‘health.’ I think that I need to back off if I’m not feeling well.” Some participants said that they were going to re-evaluate the supplements they are currently taking. For instance, one participant said “I am going to do more research on supplements and stop taking those that may be potentially harmful.”

There were some similarities between the quantitative and qualitative data. The changing attitude from physical appearance to health related concerns is most strongly related to the change in self-objectification score in participants. The Self-Objectification Questionnaire (e.g., Fredrickson et al., 1998) contains two subscales: appearance-based items and competence-based items. A significant reduction in self-objectification was observed in participants. Additionally, participants ranked competence-based items (e.g., health, physical fitness level, energy level) higher after the intervention. This shift away from appearance-based attributes toward more competency based attributes converges with the increase in health focus participants discussed in the feedback.

**Media Awareness.** Many participants wrote about an increased level of awareness about how body ideals are portrayed in the media. Participants became more aware of the economic motivations of advertisements and how these ideals are outside of the range of most people. For instance, one participant wrote, “I learned not to buy into any ‘rock solid in one week’ ads because it’s all fake.” Another participant said, “[The program] opened my eyes to the messages being portrayed by advertisements. Companies are selling an ideal body that most us guys could get or maintain.” The development of healthy media skepticism seemed to occur with some of the men in the study.



Participants also mentioned a greater awareness of meta-messages in advertising. One participant wrote of the specific skill set of understanding meta-messages stating, “I learned how to really look at the cover of health magazines and decode the messages they are sending.” Participants also indicated that they were less likely to assume someone was healthy simply on their appearance. Considering many so-called health-related advertisements often use a stereotypic mesomorphic male body, it seemed important for some participants to know that such images should not be assumed as healthy. A participant summarized it nicely stating:

“This program was extremely useful for me and helped realize that the fitness models on TV may look “good” in my eyes but that doesn’t mean they are healthy. Health is more than skin deep. Models could be wrecking havoc on their bodies in order to be lean enough to show abs or have big pecs. All the while they could actually be unhealthy.”

Feedback that focused on media images and advertising seemed to converge with quantitative data that showed a reduction in internalization of the lean-muscular ideals and a greater media skepticism. Participants gave voice to a greater understanding of the metamessages behind media images. Interestingly, men did not comment on the pressure to conform to this ideal highlighted in the quantitative data.

**Awareness of Male Body Image Concerns.** Many participants noted that they were previously unaware of the normative nature of men’s body image. For this reason, the intervention served an educational function. Participants would often respond to the studies and survey data presented about men’s body image concerns. For instance, one participant noted, “I learned some stats I’d never heard before. I never realized how much of a problem male body image/perception can be.” Another participant in the study stated it clearly, “It gave me a lot of insight on the issue of body image problems men

have that I knew little about. It taught me many facts and presented information to me that I found interesting.” From this feedback, the presentation illuminated an issue that they previously were unaware of.

### **Constructive Feedback**

Participants were also asked to provide critical feedback about what was not useful to them. Most participants left this question blank. Other responses were brief and topical. However, three themes emerged from the data: (1) steroid information was less useful, (2) length and time of the program, and (3) didn’t personally apply.

**Steroid Information.** By far the most common response was that the information about steroids was non-applicable to participants’ experiences. They would often state that the section concerning steroid use was over-exhaustive. For instance, one participant said, “Some parts I already knew such as effects of steroids and what not, but it was good to get more detail on the matter.” Because they themselves were not steroid users, a common response was that the information was not applicable to their lives. An example of this was given by one participant, “The only part that wasn’t too useful to me was the part on steroid/supplement usage, because I’ve never used either and never will.” Some participants would indicate that the material on steroids was interesting but the least useful in comparison to the rest of the intervention materials.

**Length and Time.** Participants also noted the overall length of the intervention. Men said that the program ran long. Some suggested that having two one-hour sessions would have allowed for more discussion at the end while pacing the information at an absorbable level. Some participants thought that the presentation should have been kept to an hour long to maximize energy and attention. For instance, one participant said, “An

hour and half is a long time to be sitting through a presentation. You presented interesting information but it was late evening and difficult to pay attention. Maybe shortening the presentation would help.” Participants who participated during the evening times had greater issue with the length of the program.

Some participants commented that they wished there was more time at the end of the presentation for discussion. Due to these time limitations, participants felt that there were some questions left unanswered. “I was processing what had been presented and found myself having questions. However, because we needed to leave the room due to another class coming in, I never got a chance to talk.” The discussions were often ended due to time constraints. However, this feedback speaks to the desire of some participants to have more time to discuss their reactions.

**Did Not Personally Apply.** The last set of responses indicated that some men did not believe the presentation directly applied to their lives. Men in the study would say that they were overall positive about their body image. Therefore, the presentation did not personally apply to their lives. For instance, one participant commented:

“Never really had much of a problem with my body. I’m skinny and tall and know I’m not very strong which I’m fine with. The information was interesting but it didn’t “solve” an issue I have with my body just cause I’m comfortable where I am.”

The lack of personal connection to the material in the intervention may be a potential barrier for these particular participants. The prevention intervention will not apply necessarily to everyone equally. Those who have positive body image attitudes would understandably gain less from the program.

A few participants noted that while they did not have a personal connection to the information presented, they found the presentation intellectually interesting. A participant summarized this point stating,

“I found the subject matter interesting to say the least. However, as far as applying what I learned in my own life is difficult given I don’t think I struggle with these concerns. The information was, in general, useful but didn’t have a personal effect on me.”

These participants were able to learn something without necessarily having any notable psychological or emotional outcomes.

### **Summarizing Qualitative Feedback**

The resulting take home message from the qualitative data is as follows.

Participants generally perceived the program to be helpful in presenting new information, expanding awareness about men’s body image attitudes, and challenged men to re-evaluate their relationship to health and wellbeing. They indicated an improvement in body image while also acknowledging a greater desire for body acceptance. Men in the program acknowledged an increase in awareness of media metamessages that promote body dissatisfaction for economic gain. They typically found information on steroids as intellectually interesting but not personally relevant to their lives. Participants also found the program to be long but enjoyable. It is also important to note that a small minority of participants indicated a strong positive attitude toward their body at the onset of the study and indicated no improvements in their body image as a result of the program.

## CHAPTER 5

### DISCUSSION

Body image concerns are a growing issue among men. With this growing concern comes the need for effective prevention programming. Additionally, programming must show effective results in being able to eliminate eating disorder symptoms and body image concerns as well as promoting positive body attitudes and health behaviors. The present study was one of the first controlled investigations on prevention programs for college aged men's body image concerns. The intervention was developed from previous research findings and relevant theories of men's issues and body image. After designing and piloting the prevention program, the final form of the program was implemented with college-age males. Participants were randomly assigned to either the treatment group who received the intervention or the control group who did not. After the development of the intervention, a study was conducted to analyze the results of its implementation, thereby conducting an evaluation study of the program that was created.

Inspired from feminist oriented prevention programming, an emphasis of the prevention program was given to the socio-cultural factors that contribute to disordered eating and body image disturbances. From this perspective pathologies of eating disorder and body image emerge from socio-cultural ills. Perhaps unique to men, is the double bind of body image problems. On one hand, exposure and discussion about men's body image violates a cultural taboo (Pope et al., 2000). On the other hand, men are often bound within a contemporary masculinity that purports emotional control and stoicism as imperative. From this framework, prevention interventions are simultaneously targeting

individual vulnerabilities and predispositions toward body image disturbances as well as addressing those cultural features that contribute to these concerns. Feminist inspired prevention programming served both an individual psychological goal as well as a larger social justice initiative.

Contemporary prevention interventions have the burden to supply evidence in support of the interventions effectiveness. Therefore the goal of the current study was not only to implement a prevention intervention but to collect data to ensure the targets of intervention were adequately addressed.

### **Results of the Hypotheses**

During the development of the prevention intervention, it was expected that participants would exhibit attitudinal change along a number of important sociocultural and body image targets. Specifically, it was predicted that participants in the intervention would display an increase in media literacy, positive body attitudes, positive muscular attitudes, and positive body fat attitudes. Participants would also display a reduction in internalization of the lean-muscular ideal, felt pressure to conform to the ideal, and self-objectification. Lastly, participants were expected to have no change in general mental distress as a result of the intervention.

Based on a randomized control-treatment design, several promising results emerged from this study that confirmed many of the hypotheses of the study. The results of the study illustrate that the intervention was successful at addressing some of the targets. However, some of the intervention targets did not change as a result of the intervention. The following is a review of the outcomes of the study.

## **Media Literacy Outcomes**

Hypotheses 1a-4a stated that participants in the treatment group would demonstrate improvements in media skepticism, felt pressure from the media, and internalization of the muscular and athletic ideal from pre- to post-intervention.

Hypotheses 1b-4b stated that participants in the treatment group would demonstrate greater media skepticism, lower felt pressure, and lower internalization compared to the control group at post-intervention. Most of these hypotheses were supported except for the reduction of felt pressure from the media (i.e., Hypotheses 3a and 3b).

Participants in the treatment group showed significant increases in media skepticism as a result of the program. Furthermore, participants in the treatment group displayed greater media skepticism compared to the control group participants at post-intervention. Media skepticism, in review, is a reduction of the believability of media messages promoting distorted information for economic gain. Specifically for this study, media skepticism refers to the reduction in the believability of media messages surrounding the lean-muscular ideal. As previous research suggested, the development of healthy media skepticism reduces the consumer's vulnerability to body shame when receiving media messages that promote body ideals (e.g., Irving & Berel, 2001; Irving, DuPen, & Berel, 1998; Watson & Vaughn, 2006). Therefore, healthy skepticism serves as a protective factor against those sociocultural messages that promote self-objectification and negative body image judgments.

Those who participated in the intervention also reported a significant reduction in internalization of the lean-muscular ideal. Internalization is a process whereby the individual makes the culturally proscribed ideal (i.e., lean-muscular physique) a personal

goal. Internalization of the lean-muscular ideal, specifically, has been shown to be a strong correlate to eating disorder behavior and body image disturbances (e.g., Karazsia & Crowther, 2009). The reduction of internalization is consequently an important outcome. Furthermore, participants also had a reduction in the athletic ideal. In both cases, participants in the treatment group had less internalization than those who were in the wait-list control at post-intervention. These outcomes substantiate a change in body ideals among those who participated in the intervention. Media literacy programs with girls and women have consistently shown a reduction in internalization as a result of such programs (e.g., Irving, DuPen, & Berel, 1998; Watson & Vaugn, 2006). The results of this study corroborate the effect that other media literacy programs have had on the internalization of sociocultural ideals.

The research failed to demonstrate that the program is effective in addressing pressures felt by participants to live up to the lean-muscular ideal. Felt pressure may be a more difficult target to address in prevention programming, especially brief interventions. While the program may be able to aid men in reducing their susceptibility toward cultural messages that promote a restricted body ideal, a systemic media pressure to conform still exists (Bordo, 1999). The pervasive and systemic nature of cultural media makes addressing this felt pressure difficult to contend with. Based on the outcome of this study, those who participated in the intervention still endorsed a great deal of felt pressure to have a lean-muscular physique.

Qualitative feedback corroborated many of the outcomes found in the quantitative data. Many participants noted a greater awareness about media messages and images as a result of the intervention. Participants notably remarked about not “buying into”



messages that promise miraculous before-and-after transformations. Part of the goal of media literacy is to help individuals deconstruct cultural and media messages about body image, health, and attractiveness. Participants often commented on the cultural prescriptions of the ‘ideal’ male body. Furthermore, men indicated a greater awareness about the economic incentives companies have to promote negative body image in order to sell products. While participants exhibited a heightened awareness, the program was less successful at alleviating the pressure to conform.

### **Body Image Attitudes Outcomes**

Hypotheses 5-7 addressed several of the main targets of the intervention aimed at promoting positive body image attitudes and body acceptance. It was predicted that participants in the treatment group would experience an increase in positive body image attitudes and a reduction of self-objectification. It was also predicted that treatment group participants would demonstrate more positive body image attitudes and a reduction in self-objectification than the control group.

Participants in the intervention showed an improvement in global body image attitudes from pre- to post-intervention. Additionally, men in the intervention exhibited more positive body attitudes compared to men in the waitlist control at post-intervention. Overall, these outcomes indicate a general improvement in body image attitudes as a result of the intervention.

Further analysis, however, revealed that attitudes about body fat did not change. The result of this analysis reveals a strong limitation to the program. While men typically are less concerned about body fat compared to women, the lean ideal still can have an influential effect on body image disturbances and eating disordered behaviors (Morgan,

2008). The intervention did address the drive for thinness amongst men, but to a lesser extent compared to the drive for muscularity. The lack of emphasis placed on body fat attitudes may have produced this outcome. This conclusion is only a conjecture and points the way to conducting future studies to investigate interventions that target body fat as much as lean musculature.

Participants in the intervention did exhibit an improvement in muscle attitudes from pre- to post-intervention. Additionally, those who participated in the intervention had more positive attitudes about their muscularity than those in the control group at post-intervention. A greater degree of muscle satisfaction was an important target of the intervention. The results of the study suggest that the intervention accurately targeted this area of concern. Muscle satisfaction is associated with positive self-esteem, positive coping behaviors, and psychological wellbeing (Cafri, Thompson, Ricciardelli, McCabe, Smolak, & Yesalis, 2005).

Recall that self-objectification refers to a process whereby individuals come to believe that they are objects to be looked at and evaluated. Participants exhibited a reduction in self-objectification as a result from the intervention as compared to the control group. Outcomes from the intervention also indicated that participants in the treatment group had a significant reduction in self-objectification from pre- to post-intervention. Despite a significant reduction in self-objectification in the intervention group, there were no significant differences between the control group and intervention group at post-intervention. One explanation for this is that the between group differences at pre-intervention were very close to the critical threshold of being significantly different. Given this difference, the treatment group by chance may have been

predisposed toward greater self-objectification than the control group at pre-intervention. Research has begun to evaluate self-objectification processes within men and how these impact body image distress. For instance, self-objectification has been strongly associated with negative body esteem, greater drive for muscularity, and symptoms of muscle dysmorphia in men (Grieve & Helmick, 2008; Strelan & Hargreaves, 2005).

Analysis of qualitative data corroborated with the quantitative findings.

Participants often acknowledged a general change of perspective with regard to their own body image. As often was the case, participants noted a change in their personal priorities, which included focusing on health and wellbeing above physical attractiveness. While many participants stated they have not reached full body acceptance, they were motivated to obtain body acceptance as a goal. It is also important to note that a small minority of participants commented on the general lack of concern they have about their body image and noted a general ignorance to the pervasive concern contemporary men have over their own bodies.

### **Psychological Distress Outcomes**

Previous studies have indicated media literacy/psychoeducation interventions had no discernible impact on general psychological distress (e.g., Irving & Berel, 2001; Irving, DuPen, & Berel, 1998). It was for this reason that it was predicted that the intervention would have no impact on psychological distress. Surprisingly, men in the treatment group also experienced a reduction in psychological distress as a result from the program. While the intervention did not directly address these concerns, participants in the intervention showed a reduction in psychological distress from pre- to post-intervention. The positive change in psychological distress may be explained by the

comorbid relationship between negative psychological distress and body image concerns. It is important to note, however, that participants in this study endorsed minimal psychological distress overall. Body image concerns rarely, if ever, occur absent of other psychological concerns (Costin, 2007). Participants in the treatment group may have experienced some alleviation of psychological distress as a result of positive impacts in body image, self-objectification, and media skepticism.

### **Participant Constructive Feedback**

The qualitative data revealed several areas that should be addressed in future implementations of the intervention. A sizeable group of participants indicated that the section of the program that addressed the facts and dangers of steroid use was less useful for them. Typically respondents indicated that the information was interesting but was not something they were personally concerned about. This specific feedback illustrates the challenge of delivering relevant information to two potential sub-groups of participants. First, it is important to provide adequate and relevant information for those participants who are or have considered using steroids. Secondly, the vast majority of men abstained from steroid use and may not find the material about steroid use as engaging or relevant.

The most common constructive feedback pertained to the length of the program. Participants commonly stated that the program was too long for one session. The ninety-minute length of the program does run the risk of attention fatigue. In addition, participants who participated in the evening sessions often discussed how the combination of evening time and a long program made it difficult to concentrate. However, shortening the program runs the risk of reducing the effectiveness in the

program. Furthermore, condensing the material may result in covering important information too quickly as well as reducing time for questions and discussion. Future research of the intervention will have to experiment with different time and session modalities to balance attention fatigue and content coverage.

### **Implications**

The results of the current study provide important implications for future research and body image prevention. The following section will position the findings of this study within related research as well as the prevention literature. Furthermore, important implications for counselors and psychologists will be discussed.

#### **Implications for Future Research**

The findings of this study in the context of past research have significant implications for the body image prevention literature. Few prevention programs have been developed and evaluated solely for men (i.e., Stanford & McCabe, 2005; McCabe, Ricciardelli & Karantzas, 2010). The current study expands body image prevention by illustrating improvements to body image and muscle attitudes among men. The results of the present study indicate that not only can prevention programs be developed to target men's body image concerns but such interventions can improve body image attitudes and other distal factors such as self-objectification, and psychological distress that contribute to body image distress and eating disordered behaviors.

The current study, in particular, extends the literature on media literacy programming. Media literacy interventions have traditionally been employed for girls and college-aged women to address sociocultural pressures to conform to a thin-ideal. Consequently, media literacy interventions focus on teaching girls and women to become

more active and critical consumers of appearance-related media which in turn would positively influence internalization of societal beauty standards and increase body image satisfaction. To this researcher's knowledge, this is one of the first media literacy interventions designed specifically for college-aged men's body image concerns. Taking the theoretical underpinnings of media literacy and applying them to contemporary young men, this study demonstrated many positive outcomes. The program was able to show marked improvements in media skepticism and the reduction in internalization of the lean-muscular and athletic ideals. Researchers and program developers should be encouraged to continue the development of media literacy programs aimed at improving boys' and men's body image.

Future research could build off of the current study in important ways. For instance, research could experiment with intervention dosages to include multiple sessions. Having multiple exposures to an intervention as well as having continued discussions may help facilitate a greater depth of awareness around body image issues. Furthermore, research could explore various interactive programming and presentations styles including peer-led formats to reveal new insights. Given the present study did not include a follow up assessment (see Limitations section below), it would be important to know the long-term effects of such programming.

While media literacy was utilized in this research, eating disorder and body image prevention programming on university campuses includes a number of various theoretical and evidenced-based approaches (see Yager & O'Dea, 2008). Therefore, future prevention programs could involve developing other intervention modalities outside of the media literacy tradition for male populations. Lastly, the present study represented

one of only a few studies that targeted men's body image prevention. The lack of research in this area is primarily due to changing culture in regard to men and body image. Given this fact, presumably there is a multitude of future directions for research.

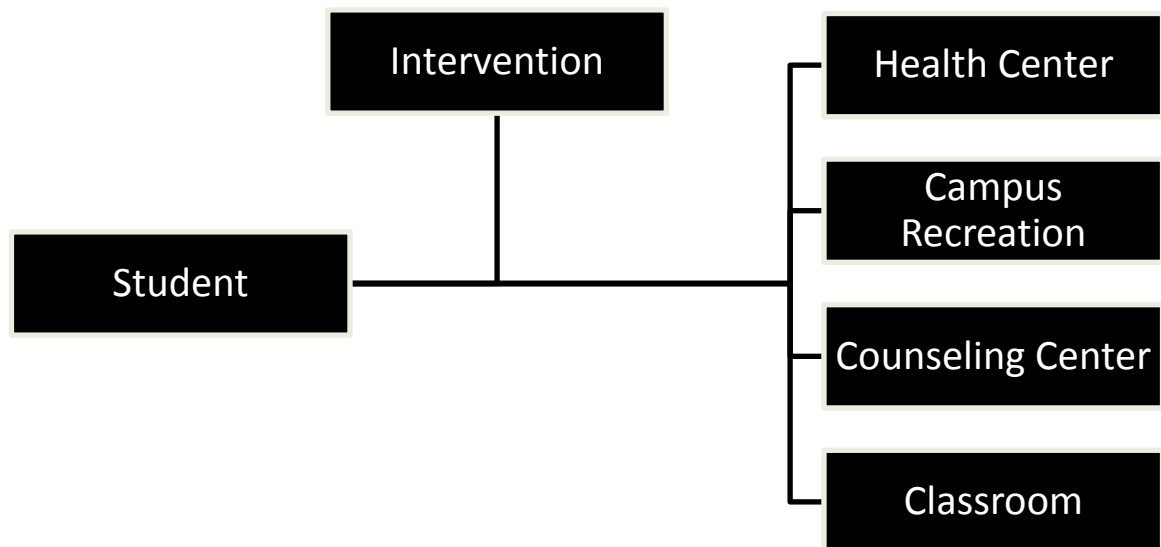
### **Practice Implications and Future Use**

Community programmers and educators should consider ways to address body image concerns among men. In accordance with feminist prevention theory, empowering citizens to derive self-worth from sources outside of body shape and appearance is a worthwhile endeavor (Irving, DuPen, & Berel, 1998). Part of this process is to encourage dialogue among men and women about men's body image concerns. This researcher found that many men engaged in or desired to be part of a dialogue that addresses men's body image concerns. The use of multimedia and contemporary examples of men's body image concerns may help young men connect to the message. Such community building can promote advocacy and reduce stigma around the issue.

Feminist prevention theory has also been instrumental in the development of media materials that educate women about the potentially toxic effect appearance-based media can have on body image. For instance, Kilbourne (1995) created a video program in the hope of raising girls' and women's awareness about sociocultural factors that influence the "obsession with thinness." The development of such materials for men would be also an important addition to creating community advocacy in this area.

As figure 5.1 demonstrates, the prevention intervention developed and evaluated in this study could easily be adapted for a number of campus-related environments including counseling center outreach, student recreation programming, student health programming, or course specific lectures. University counseling center psychologists and

counselors could actively employ similar interventions as the one described in this study. The program used in this study can easily be packaged and deployed in a number of physical environments including classrooms, auditoriums, or small groups. Other professionals could be trained to be effective presenters and deliver the materials used in this intervention. Presumably presenters who have knowledge of body image concerns with men and are also aware of contemporary media would be best suited to lead these interventions. The present study demonstrated that an immediate improvement of attitudes can be created in a brief one-time program. These results offer great promise to men's body image programming. An important result was that men were mostly receptive to the program. A brief media literacy/psychoeducation program could also be easily deployed with other programming during Eating Disorder Awareness Month. Most universities are likely to already enact various programming at that time and this program could extend the conversation to include men's body image more deliberately.



*Figure 5.1: Multitier Programming Approach*



### **Limitations**

As with any research, this study has several limitations. The following section will discuss notable limitations that must be taken into consideration. One limitation of this study is the lack of ethnic, racial, and sexual orientation diversity of the sample obtained. The sample gathered for this study was predominately White/Caucasian men. Additionally, the majority of men in the study self-identified as heterosexual. The lack of diversity in the sample limits how the findings of this study can be generalized to the larger population. Another important factor to note is the possibility of selection bias in the sample. Because the program was advertised as a “men’s health, fitness, and body image program,” this may have inadvertently selected a group of individuals who may not represent the general population. Participants could have been more eager to learn and discuss these issues since they had volunteered to participate in the study.

An additional limitation is the instrumentation used in the study. Since male body image research has only recently begun to emerge, the development of male body image instruments is also in its infancy (Cafri & Thompson, 2004). The majority of scales developed have focused on attitudes about muscularity. While these instruments are clearly needed, there is a general absence of comprehensive male body image scales. While the Male Body Image Scale was used in the present study, several items were removed in order to provide an instrument that was sensitive to state changes. The items that were removed inquired into past thoughts or behaviors that are not subject to present or future change. The future development of male body image measures that comprehensively addresses the many factors that compose body image are needed.

Another important factor to note is that the intervention was delivered by this researcher/program developer. It is possible that a presenter effect may exist within this study given this researcher relative age to participants. It is important to note that when addressing body image in prevention, the presenter's own body can become an object of observation and scrutiny (Henderson, 2012). For this reason, it is possible that age, gender, and body type may contribute toward an interventions outcome. Future research should investigate the relationship between presenter variables and body image prevention intervention outcomes.

Along with the previous limitations, the current study did not include behavioral measures. The lack of behavioral measurements means that no conclusions can be made on whether this program had any impact on participants dieting, exercising, use of supplements, or other health related behaviors. Lastly, this study did not utilize follow-up measurements. Due to the lack of follow up data, it is impossible to know if the improvements in body image attitudes were lasting. Ideally, a longitudinal study is best suited for a program evaluation. In practice, however, the resources, time, and attrition issues can make this a difficult endeavor.

### **Conclusion**

The intervention described in this study was developed in response to the growing concerns young men have with body image (Pope et al. 2000). Weaving together sociocultural, social comparison, and gender theories within the media literacy and body image prevention modalities, the intervention intended to improve body image attitudes while also reducing the internalization of the lean-muscular ideal.

Modern prevention interventions carry a responsibility to display empirical support (Vera, 2000). Results of this study illustrate empirical support for a psychoeducational and media literacy men's body image prevention intervention. Specifically, the intervention improved general body image attitudes, muscular satisfaction, affect, and media skepticism while also reducing internalization of the lean-muscular ideal and self-objectification. This study offers encouragement to both body image researchers and prevention coordinators alike. There is a growing need for community interventions that address men's body image and eating disorders. Important in body image prevention is the promotion and acceptance of body diversity. Morgan (2008) succinctly stated the goal:

“Ultimately, it is unnatural for societies to present a single body image ideal. Men and women come in all shapes and sizes, and those shapes and sizes will be attractive to someone, somewhere. . . We should accept no body image ideals beyond health, balance, and respect for diversity” (p. 101).

This study served as the catalyst for uniting feminist inspired prevention programming with contemporary men's body image concerns. The present study positions itself as a preliminary study within the men's body image prevention field. Researchers and community programmers alike are charged with the duty to empower young men and women to have healthy relationships with their bodies.

## References

- Adams, G., Turner, H., & Bucks, R. (2005). The experience of body dissatisfaction in men. *Body Image*, 2, 271-283.
- Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the context of help seeking. *American Psychologist*, 58, 5-14.
- Agliata, D. & Tantleff-Dunn, S. (2004). The impact of media exposure on males' body image. *Journal of Social and Clinical Psychology*, 23, 7-22. Doi:
- Arbour, K. & Martin Ginis, K. (2006). Effects of exposure to muscular and hypermuscular media images on young men's muscularity dissatisfaction and body dissatisfaction. *Body Image*, 3, 153-161.
- Bahrke, M. S. (2007). Muscle enhancement substances and strategies. In J. K. Thompson, & Cafri, G. (Eds.). *The muscular ideal: Psychological, social, and medical perspectives* (pp. 141-160). Washington, DC: American Psychological Association.
- Baird, A. L., & Grieve, F. G. (2006). Exposure to male models in advertisements leads to a decrease in men's body satisfaction. *North American Journal of Psychology*, 8(1), 115-122.
- Bartlett, C. P., & Harris, R. J. (2008). The impact of body emphasizing video games on body image concerns in men and women. *Sex Roles*, 59, 586-601. doi: 10.1007/s11199-008-9457-8.
- Bartlett, C. P, Smith, S. J., & Harris, R. J. (2006). The interference effect of men's handling of muscular action figures on a lexical decision task. *Body Image*, 3, 375-383. doi: 10.1016/j.bodyim.2006.09.003

- Bartlett, C. P., Vowels, C. L., & Saucier, D. A., (2008). Meta-analyses of the effects of media images on men's body-image concerns. *Journal of Social and Clinical Psychology, 27*, 279-310.
- Bergeron, D., & Tylka, T. L. (2007). Support for the uniqueness of body dissatisfaction from drive for muscularity among men. *Body Image, 4*, 288-295.
- Blouin, A. G., & Goldfield, G. S. (1995). Body image and steroid use in male bodybuilders. *International Journal of Eating Disorders, 18*, 159-165.
- Bordo, S. (1999). *The male body: A new look at men in public and in private*. New York: Farrar, Straus, and Giroux.
- Boroughs, M., Cafri, G., & Thompson, J. K., (2005). Male body depilation: Prevalence and associated features of body hair removal. *Sex Roles, 52*, 637-644.
- Bottamini, G., & Ste-Marie, D. M. (2006). Male voices on body image. *International Journal of Men's Health, 5*, 109-132.
- Braun, D. L., Sunday, S. R., Huang, A., & Halmi, K. A., (1999). More males seek treatment for eating disorders. *International Journal of Eating Disorders, 25*, 415-424.
- Buckley, G. I., & Malouff, J. M. (2005). Using modeling and vicarious reinforcement to produce more positive attitudes toward mental health treatment. *Journal of Psychology: Interdisciplinary and Applied, 139*, 197-209.
- Buono, A. (Producer), Czarnecki, J. (Producer), Engfehr, K. (Producer), Rawady, T. (Producer), & Bell, C. (Director). (2008). *Bigger, stronger, faster*. U.S.A.: Madman Films.

- Cafri, G., & Thompson, J. K. (2004). Measuring male body image: A review of the current methodology. *Psychology of Men & Masculinity*, 5, 18-29.  
doi:10.1037/1524-9220.5.1.18
- Cafri, G., Thompson, J. K., Ricciardelli, L., McCabe, M., Smolak, L., & Yesalis, C. (2005). Pursuit of the muscular ideal: Physical and psychological consequences and putative risk factors. *Clinical Psychology Review*, 25, 215-239.  
Doi:1.1016/j.cpr.2004.09.003
- Calogero, R. M., & Thompson, J. K. (2010). Gender and body image. In J. C. Chrisler, & D. R. McCreary (Eds.), *Handbook of gender research in psychology* (pp. 153-184). NY: Springer. doi:10.1007/978-1-4419-1467-5\_8
- Caplan, G. (1964). *Principles of preventive psychiatry*. New York: Basic Books.
- Cash, T. F. (2002). Cognitive-behavioral perspectives on body image. In T. F. Cash and T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 38-46). New York: Guilford.
- Cash, T. (2008). *The Body Image Workbook*. New York: New Harbinger.
- Cohane, G. H., & Pope, H. G. (2001). Body image in boys: A review of the literature. *International Journal of Eating Disorders*, 29, 373-379.
- Connan, F. (1998). Machismo nervosa: An ominous variant of bulimia nervosa? *European Eating Disorders Review*, 6, 154-159.
- Corson, P. W., & Andersen, A. E. (2002). Body image issues among boys and men. In T. F. Cash and T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 192-199). New York: Guilford.

- Costin, C. (2007). *The eating disorder sourcebook: A comprehensive guide to the causes, treatments, and prevention of eating disorders* (3<sup>rd</sup> ed.). New York: McGraw Hill.
- Coughlin, J. W., & Kalodner, C. (2006). Media literacy as a prevention intervention for college women at low- or high-risk for eating disorders. *Body Image*, 3, 35-43.  
Doi:10.1016/j.bodyim.2006.01.001
- Crosscope-Happel, C., Hutchins, D., E., Getz, H. G., & Hayes, G., L. (2000). Male anorexia nervosa: A new focus. *Journal of Mental Health Counseling*, 22(4), 365-370.
- Daniel, S., & Bridges, S. K. (2009). The drive for muscularity in men: Media influences and objectification theory. *Body Image*, 7, 32-38.  
doi:10.1016/j.bodyim.2009.08.003
- Davis, C., & Cowles, M. (1991). Body image and exercise: A study of relationships and comparisons between physically active men and women. *Sex Roles*, 25, 33-44.
- Davis, C., & Scott-Roberton, L. (2000). A psychological comparison of females with anorexia nervosa and competitive male bodybuilders: body-shape ideals in the extreme. *Eating Behaviors*, 1, 33-46.
- Davis, C., Brewer, H., & Weinstein, M. (1993). A study of appearance anxiety in men. *Social Behavior and Personality*, 21, 63-74.
- Davis, C., Karvinen, K., & McCreary, D. R. (2005). Personality correlates of a drive for muscularity in young men. *Personality and Individual Differences*, 39, 349-359.  
doi:10.1016/j.paid.2005.01.013
- De Souza, P., & Ciclitira, K. (2005). Men and dieting: A qualitative analysis. *Journal of Health Psychology*, 10, 793-804.

- Drwnowski, A., & Yee, K. K. (1987). Men and body image: Are males satisfied with their body weight? *Psychosomatic Medicine*, 49, 626-634.
- Duggan, S. J., & McCreary, D. R. (2004). Body image, eating disorders, and the drive for muscularity in gay and heterosexual men, *Journal of Homosexuality*, 47, 45-58. doi:10.1300/J082v47n03z\_03
- Farquhar, J. C., & Wasylkiw, L. (2007). Media images of men: Trends and consequences of body conceptualization. *Psychology of Men & Masculinity*, 8(3), 145-160. doi: 10.1037/1524-9220.8.3.145
- Fawkner, H. J., & McMurray, N. E. (2002). Body image in men: Self-reported thoughts, feelings, and behaviors in response to media images. *International Journal of Men's health*, 1(2), 137–161.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Franzoi, S. L. (1995). The body-as-object versus the body-as-process: Gender differences and gender considerations. *Sex Roles*, 33, 417-437.
- Fredrick, D. A., Fessler, D. M. T., & Hazelton, M. G. (2005). Do representations of male muscularity differ in men's and women's magazines? *Body Image*, 2, 81-86.
- Frederick, D. A., Peplau, L. A., & Lever, J. (2006). The swimsuit issue: Correlates of body image in a sample of 52,677 heterosexual adults. *Body Image: An International Journal of Research*, 4, 413–419.
- Fredrickson, B. L., Roberts, T. A., Noll, S. M., Quinn, D. M., & Twenge, J. M. (1998). That swimsuit becomes you: Sex differences in self-objectification, restrained



eating, and math performance. *Journal of Personality and Social Psychology*, 75, 269-284.

Freedman, R. (1986). *Beauty bound*. Lexington, MA: Heath.

Frith, H., & Gleeson, K. (2004). Clothing and embodiment: Men managing body image and appearance. *Psychology of Men and Masculinity*, 5, 40-48.

Galli, N., & Reel, J. J. (2009). Adonis or Hephaestus? Exploring body image in male athletes. *Psychology of Men & Masculinity*, 10, 95-108. doi:10.1037/a0014005

Garman, J. F., Hayduk, D. M., Crider, D. A., & Hodel, M. M. (2004). Occurrence of exercise dependence in a college-aged population. *Journal of American College Health*, 52, 221-228.

Garner, D. M. (1997, January). The body image survey. *Psychology Today*, 23-84.

Goldberg, L., & Elliot, D. L. (2007). The prevention of anabolic steroid use among adolescents. In J. K. Thompson, & Cafri, G. (Eds.). *The muscular ideal: Psychological, social, and medical perspectives* (pp. 161-180). Washington, DC: American Psychological Association.

Gordon, R. (1987). An operational classification of disease prevention. In J. A. Sternberg & M. M. Silverman (Eds.), *Preventing mental disorders* (pp. 20-26). Rockville, MD: U.S. Department of Health and Human Services.

Gray, J. J., & Ginsberg, R. L. (2007). Muscle dissatisfaction: An overview of psychological and cultural research and theory. In J. K. Thompson, & Cafri, G. (Eds.). *The muscular ideal: Psychological, social, and medical perspectives* (pp. 15-40). Washington, DC: American Psychological Association.

- Grieve, F. G. (2007). A conceptual model of factors contributing to the development of muscle dysmorphia. *Eating disorders, 15*, 63-80.
- Grieve, F. G., & Helmick, A. (2008). The influence of men's self-objectification on the drive for muscularity: Self-esteem, body satisfaction and muscle dysmorphia. *International Journal of Men' Health, 7*, 288-298. doi: 10.3146/jmh.0703.288
- Grogan, S., & Richards, H. (2002). Body image: Focus groups with boys and men. *Men and Masculinities, 4*, 219-232.
- Hargreaves, D. A., & Tiggemann, M. (2009). Muscular ideal media images and men's body image: Social comparison processing and individual vulnerability. *Journal of Men & Masculinity, 10*, 109-119. oi:10.1037/a014691
- Harvey, J. A., & Robinson, J. D. (2003). Eating disorders in men: Current considerations. *Journal of Clinical Psychology in Medical Settings, 10*, 297-306. doi: 1068-9583/03/1200-0297/0
- Hausenblas, H. A., Janelle, C. A., Gardner, R. E., & Hagan, A. L. (2003). Affective responses of high and low body satisfied men to viewing physique slides. *Eating Disorders, 11*, 101-113. doi:10.1080/10640260390199299
- Hatoum, I. J., & Belle, D. (2004). Mags and abs: Media consumption and bodily concerns in men. *Sex Roles, 51*, 397-407.
- Henderson, J. D. (2012). Confronting Adonis: An authoethnography of gender consciousness and embodied masculinity. In Badiee, M, Creswell, J, Henderson, J. D., Baker, C., & Bastami, S. *Autoethnographies of gender consciousness*. Paper presented for The International Congress for Qualitative Inquiry Conference, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL.

- Henry, J. D., & Crawford, J. R. (2005). The short form of the depression, anxiety, and stress scale (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*, 227-239. doi: 10.1348/014466505X29657
- Hobza, C. L., Walker, K. E., Yakushko, O., & Peugh, J. L. (2007). What about men? Social comparison and the effects of media images on body and self-esteem. *Psychology of Men & Masculinity, 8*(3), 161-172.
- Hoaglin, D. C., Mosteller, F., & Tukey, J. W. (1983). Understanding Robust and Exploratory Data Analysis. New York: Wiley.
- Hotelling, K. (1999). An integrated prevention/intervention program for the university setting. In N. Piran, M. P. Levine, and C. Steiner-Adair (Eds.) *Preventing eating disorders: A handbook of interventions and special challenges* (pp. 208-221). Philadelphia, PA: Brunner/Mazel.
- Irving, L. M. (1999). A bolder model of prevention: Science, practice, and activism. In N. Piran, M. P. Levine, and C. Steiner-Adair (Eds.) *Preventing eating disorders: A handbook of interventions and special challenges* (pp. 63-83). Philadelphia, PA: Brunner/Mazel.
- Irving, L. M., & Berel, S. R. (2001). Comparison of media-literacy programs to strengthen college women's resistance to media images. *Psychology of Women Quarterly, 25*, 103-111.
- Irving, L. M., DuPen, J., & Berel, S. (1998). A media literacy program for high school females. *Eating Disorders, 6*, 119-131.

- Irving, L. M., Wall, M., Neumark-Sztainer, D., & Story, M. (2002). Steroid use among adolescents: Findings from Project EAT. *Journal of Adolescent Health, 30*, 243-252.
- Kanayama, G., Hudson, J. I., & Pope, H. G. (2009). Illicit anabolic-androgenic steroid use. *Hormones and Behavior*. doi:10.1016/j.yhbeh.2009.09.006.
- Kanayama, G., Pope, H. G., Cohane, G., & Hudson, J. I. (2003). Risk factors for anabolic-androgenic steroid use among weightlifters: A case control study. *Drug and Alcohol Dependence, 71*, 77-86. doi:10.1016/S0376-8716(03)00069-3
- Karazsia, B. T., & Crowther, J. H. (2008). Psychological and behavioral correlates of the SATAQ-3 with males. *Body Image, 5*, 109-115.  
doi:10.1016/j.bodyim.2007.08.004
- Karazsia, B. T., & Crowther, J. H. (2009). Social body comparison and internalization: Mediators of social influences on men's muscularity-oriented body dissatisfaction. *Body Image, 6*, 105-112. doi:10.1016/j.bodyim.2008.12.003.
- Kimmel, M. S. (2003). Masculinity as homophobia: Fear, shame, and silence in the construction of gender identity. In T. E. Ore (Ed.). *The construction of difference & inequality: Race, class, gender, and sexuality* (pp. 119-136). New York, NY: McGraw-Hill.
- Klein, A. (2007). Size matters: Connecting subculture to culture in bodybuilding. In J. K. Thompson, & Cafri, G. (Eds.). *The muscular ideal: Psychological, social, and medical perspectives* (pp. 67-84). Washington, DC: American Psychological Association.

- Labre, M. P. (2005). Burn fat, build muscle: A content analysis of Men's Health and Men's Fitness. *International Journal of Men's Health*, 4(2), 187-200.
- Leit, R. A., Pope, H. G., & Gray, J. J. (2000). Cultural expectations of muscularity in men: The evolution of Playgirl centerfolds. *International Journal of Eating Disorders*, 29, 90-93.
- Levant, R. F. (1990). Psychological services designed for men: A psychoeducational approach. *Psychotherapy*, 27, 309-315.
- Levine, M. P., Piran, N., & Stoddard, C. (1999). Mission more probable: Media literacy, activism, and advocacy as primary prevention. In N. Piran, M. P., Levine, and C. Steiner-Adair (Eds.) *Preventing eating disorders: A handbook of interventions and special challenges* (pp. 1-25). Philadelphia, PA: Brunner/Mazel.
- Levine, M. P., & Smolak, L. (1998). The mass media and disordered eating: Implications for primary prevention. In W. Vandereycken and G. Noordenbos (Eds.). *The prevention of eating disorders* (pp.23-56). New York, NY: New York University Press.
- Levine, M. P., & Smolak, L. (2006). *The prevention of eating problems and eating disorders: Theory research, and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Lovibond, P. F., & Lovibond, S. H. (1995) The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the Beck depression and anxiety inventories. *Behaviour Research and Therapy*, 33, 335-343.

- Luciano, L. (2001). *Looking good: Male body image in modern America*. New York, NY: Hill and Wang.
- Luciano, L. (2007). Muscularity and masculinity in the United States: A historical overview. In J. K. Thompson, & Cafri, G. (Eds.). *The muscular ideal: Psychological, social, and medical perspectives* (pp. 41-66). Washington, DC: American Psychological Association.
- Lynch, S. M., & Zellner, D. A. (1999). Figure preferences in two generations of men: The use of figure drawings illustrating differences in muscle mass. *Sex Roles, 40*, 833-843.
- Maida, D. M., & Armstrong, S. L. (2005). The classification of muscle dysmorphia. *International Journal of Men's Health, 4*, 73-91.
- McCabe, M. P., & Ricciardelli, L. A. (2004). Body image dissatisfaction among males across the lifespan: A review of past literature. *Journal of Psychosomatic Research, 56*, 675-685.
- McCreary, D. R., Saucier, D. M., & Courtenay, W. H. (2005) The drive for muscularity and masculinity: Testing the associations among gender-role traits, behaviors, attitudes, and conflict. *Psychology of Men & Masculinity, 6*(2), 83-94.  
doi:10.1037/1524-9220.6.2.83
- Morrison, T. G., Morrison, M. A., & Hopkins, C. (2003). Striving for body perfection? An exploration of the drive for masculinity in Canadian men. *Psychology of Men & Masculinity, 4*(2), 111-120. Doi:10.1037/1524-9220.4.2.111
- Morgan, J. F. (2008). *Invisible men: A self-help guide for men with eating disorders, compulsive exercise, and bigorexia*. New York, NY: Routledge.

- Mrazek, P. J., and Haggerty, (1994). *Reducing risks for mental disorders: Frontiers for prevention intervention research*. Washington, D.C.: National Academy Press.
- Muth, J. L., & Cash, T. F. (1997). Body-image attitudes: What difference does gender make? *Journal of Applied Social Psychology*, 27, 1438-1452.
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology*, 118, 683-698. doi:10.1037/a0016763.
- Nation, M., Crusto, C., Wandersman, A. Kumpfer, K. L, Seybolt, D., Morrissey-Kane, E. et al. (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist*, 58, 449-456. doi: 10.1037/0003-066X.58.6-7.449
- Noll, S. N., & Fredrickson, B. L. (1998). A mediational model of linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly*, 22, 623-636.
- O'Dea, J. A., & Abraham, S. (2000). Improving the body image, eating attitudes, and behaviors of young male and female adolescents: A new educational approach that focuses on self-esteem. *International Journal of Eating Disorders*, 28, 43-75. doi:10.1002/(SICI)1098-108X(200007)28:1<43::AID-EAT6>3.0.CO;2-D
- Olivardia, R. (2001). Mirror, mirror on the wall, who is the largest of them all? The features and phenomenology of muscle dysmorphia. *Harvard Review of Psychiatry*, 9(5), 254-259.
- Olivardia, R., Pope, H. G., Borowiecki, J. J., & Cohane, G. H. (2004). Biceps and body image: The relationship between muscularity and self-esteem, depression, and

eating disorder symptoms. *Psychology of Men & Masculinity*, 5(2), 112-120.  
doi:10.1037/1524-9220.5.2.112

Olivardia, R., Pope, H. G., Mangweth, B., & Hudson, J. I. (1995). Eating disorders in college men. *American Journal of Psychiatry*, 52, 1279-1285.

Piran, N. (1999). On the move from tertiary to secondary and primary prevention: Working with an elite dance school. In N. Piran, M. P. Levine, and C. Steiner-Adair (Eds.) *Preventing eating disorders: A handbook of interventions and special challenges* (pp. 256-269). Philadelphia, PA: Brunner/Mazel.

Pleck, J. H. (1981). *The myth of masculinity*. Cambridge, MA: MIT Press.

Pope, H. G., Katz, D. L., & Hudson, J. I. (1993). Anorexia nervosa and “reverse anorexia” among 108 male bodybuilders. *Comprehensive Psychiatry*, 34, 406-409.

Pope, H. G., Olivardia, R., Gruber, A., & Borowiecki, J. (1999). Evolving ideals of male body image as seen through action toys. *International Journal of Eating Disorders*, 26, 65-72.

Pope, H. G., Phillips, K. A., & Olivardia, R. (2000). *The Adonis complex: The secret crisis of male body obsession*. New York: The Free Press.

Posavac, H. D., Posavac, S. S., & Weigel, R. G. (2001). Reducing the impact of media images on women at risk for body image disturbance: Three targeted interventions. *Journal of Social and Clinical Psychology*, 20, 324-340.

Rabak-Wagner, J., Eickhoff-Shemek, J., & Kelly-Vance, L. (1998). The effects of media analysis on attitudes and behaviors regarding body image among college students. *Journal of American College Health*, 47, 29-35.



- Reese, L. E., & Vera, E. M. (2007). Culturally relevant prevention: The scientific and practical considerations of community-based programs. *The Counseling Psychologist, 35*, 763-778. doi: 10.1177/0011000007304588.
- Ricciardelli, L. A., & McCabe, M. P. (2004). Pursuit of muscularity among adolescents. In J. K. Thompson & G. Cafri (Eds.), *The muscular ideal: Psychological, social and medical perspectives* (pp. 199-216). Washington, DC: American Psychological Association.
- Ricciardelli, R., Clow, K., & White, P. (2010). Investigating hegemonic masculinity: Portrayals of masculinity in men's lifestyle magazines. *Sex Roles, 63*, 64-78. doi: 10.1007/s11199-010-9764-8.
- Ridgeway, R. T., & Tylka, T. L. (2005). College men's perceptions of ideal body composition and shape. *Psychology of Men & Masculinity, 6*(3), 209-220. doi:10.1037/1524-9220.6.3.209
- Rolhinger, D. A. (2002). Eroticizing men: Cultural influences on advertising and male objectification. *Sex Roles, 46*, 61-64.
- Romano, J. L., & Hage, S. M. (2000). Prevention and counseling psychology: Revitalizing commitments for the 21<sup>st</sup> century. *The Counseling Psychologist, 28*, 733-763.
- Rosin, H. (2010, July/August). The end of men. *The Atlantic, 56*-72.
- Sarwer, D. B., Crerand, C. E., & Gibbons, L. M. (2007). Cosmetic procedures to enhance body shape and muscularity. In J. K. Thompson, & Cafri, G. (Eds.). *The muscular ideal: Psychological, social, and medical perspectives* (pp. 183-198). Washington, DC: American Psychological Association.

- Sheehy, J., & Commerford, M. (2006). Eating disorders. In P. A. Grayson and P. W. Meilman (Eds.) *College mental health practice* (pp. 261-280). New York, NY: Routledge.
- Shisslak, C. M., & Crago, M. (1994). Toward a new model for the prevention of eating disorders. In P. Fallon, M. A. Katzman, and S. C. Wooley (Eds.). *Feminist perspectives on eating disorders* (pp. 419-138). New York, NY: Guilford.
- Smolak, L., Levine, M. P., & Thompson, K. J. (2001). The use of the sociocultural attitudes towards appearance questionnaire with middle school boys and girls. *International Journal of Eating Disorders*, 29, 216-223.
- Smolak, L., Murnen, S. K., & Thompson, J. K. (2005). Sociocultural influences and muscle building in adolescent boys. *Psychology of Men & Masculinity*, 6, 227-239. doi:10.1037/1524-9220.6.4.227.
- Soban, C. (2006). What about the boys?: Addressing issues of masculinity within male anorexia nervosa in a feminist therapeutic environment. *International Journal of Men's Health*, 5(3), 251-267.
- Stein, R. I., Saelens, B. E., Dounchis, J. Z., Lewczyk, C. M., Swenson, A. K., & Wilfley, D. E. (2001). Treatment of eating disorders in women. *The Counseling Psychologist*, 29(5), 695-732.
- Steiger, H., & Séguin, J. R. (1999) Eating disorders: Anorexia nervosa and bulimia nervosa. In Millon, T., Blaney, P. H., & Davis, R. D. (Eds.) *Oxford textbook of psychopathology* (pp. 365-389). New York, NY: Oxford University Press.

- Stice, E., Orjada, K., & Tristan, J. (2006). Trial of a psychoeducational eating disturbance intervention for college women: A replication and extension. *International Journal of Eating Disorders*, 39, 233-239. doi: 10.1002/eat
- Stice, E., & Ragan, J. (2002). A preliminary controlled evaluation of an eating disturbance psychoeducational intervention for college students. *International Journal of Eating Disorder*, 31, 159-171,
- Striegel-Moore, R. H., & Steiner-Adair, C. (1998). Primary prevention of eating disorders: Further considerations from a feminist perspective. In W. Vandereycken and G. Noordenbos (Eds.). *The prevention of eating disorders* (pp.1-22). New York, NY: New York University Press.
- Stormer, S. M. & Thompson, J. K. (1995). *The effect of media images and sociocultural beauty ideals on college-age women: A proposed psychoeducation program*. Poster session presented at the meetings of the Association for the Advancement of Behavior Therapy, New York, NY.
- Stormer, S., & Thompson, J. K. (1998). *An evaluation of a media-focused psychoeducational program for body image disturbance*. Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy, Washington, D.C.
- Tager, D., Good, G. E., Morrison, J. B. (2006). Our bodies, ourselves revisited: Male body image and psychological well-being. *International Journal of Men's Health*, 5(3), 228-237.
- Thompson, J. K., & Cafri, G. (Eds.). (2007). *The muscular ideal: Psychological, social, and medical perspectives*. Washington, DC: American Psychological Association.

- Thompson, J. K., van den Berg, P. Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The sociocultural attitudes towards appearance scale-3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders*, 35, 293-304. doi:10.1016/j.bodyim.2007.08.004.
- Thompson, J. K., Heinberg, L., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Tiggemann, M., Martins, Y., & Kirkbride, A. (2007). Oh to be lean and muscular: Body image ideals in gay and heterosexual men. *Psychology of Men & Masculinity*, 8(1), 15-24. doi:10.1037/1524-9220.8.15
- Vera, E. M. (2000). A recommitment to prevention work in counseling psychology. *The Counseling Psychologist*, 28, 829-837.
- Wade, T. D., Davidson, S., & O'Dea, J. A. (2003). A preliminary controlled evaluation of a school-based media literacy program and self-esteem program for reducing eating disorder risk factors. *Eating Disorders*, 33, 371-383. doi: 10.1002/eat.1013
- Walker, D. C., Anderson, D. A., & Hildebrandt, T. (2009). Body checking behaviors in men. *Body Image*, 6, 164-170. doi:10.1016/j.bodyim.2009.05.001
- Watson, R., & Vaughn, L. M. (2006). Limiting the effects of the media on body image: Does the length of a media literacy intervention make a difference? *Eating Disorders*, 14, 385-400. doi: 10.1080/10640260600952530.
- Weber, B. R. (2006). What makes a man? Television makeovers, made-over masculinity, and male body image. *International Journal of Men's Health*, 5, 287-306. doi: 1532-6306.0503.287

- Wilksch, S. M., & Wade, T. (2009). Reduction of shape and weight concern in young adolescents: A 30-month controlled evaluation of a media literacy program. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48, 652-661. doi:10.1097/CHI.0b013e3181a1f559.
- Winzelberg, A. J., Abascal, L., & Taylor, C. B. (2002). Psychoeducational approaches to prevention and change of negative body image. In T. Cash and T. Pruzinsky (Eds.). *Body image: A handbook of theory, research, and clinical practice* (pp. 487-505). New York: Guildford.
- Yager, Z., & O'Dea, J. A. (2008). Prevention programs for body image and eating disorders on university campuses: A review of large, controlled interventions. *Health Promotion International*, 23, 173-189. doi:10.1093/heapro/dan004
- Zabinski, M. F., Wilfley, D. E., Calfas, K. J., Winzelberg, A. J. & Taylor, C. B. (2004). An interactive psychoeducational intervention for women at risk of developing an eating disorder. *Journal of Consulting and Clinical Psychology*, 72, 914-919. doi:10.1037/0022-006X.72.5.914

## Appendix A

### Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3)

1. TV programs are an important source of information about fashion and “being attractive.”
2. I’ve felt pressure from TV or magazines to lose weight.
3. I would like my body to look like the people who are on TV.
4. I compare my body to the bodies of TV and movie stars.
5. TV commercials are an important source of information about fashion and “being attractive.”
6. I’ve felt pressure from TV or magazines to look muscular.
7. I would like my body to look like the models who appear in magazines.
8. I compare my appearance to the appearance of TV and movie stars.
9. I’ve felt pressure from TV and magazines to be muscular.
10. I would like my body to look like the people who are in the movies.
11. I compare my body to the bodies of people who appear in magazines.
12. Magazines articles are an important source of information about fashion and “being attractive.”
13. I’ve felt pressure from TV or magazines to have a perfect body.
14. I compare my appearance to the appearance of people in magazines.
15. Magazine advertisements are an important source of information about fashion and “being attractive.”
16. I’ve felt pressure from TV or magazines to diet.
17. I wish I looked as athletic as people in magazines.
18. I compare my body to that of people in “good shape.”
19. Pictures in magazines are an important source of information about fashion and “being attractive.”
20. I’ve felt pressure from TV or magazines to exercise.
21. I wish I looked as athletic as sports stars.
22. I compare my body to that of people who are athletic.
23. Movies are an important source of information about fashion and “being attractive.”
24. I’ve felt pressure from TV or magazines to change my appearance.
25. I try to look like the people on TV.
26. Movie stars are an important source of information about fashion and “being attractive.”
27. Famous people are an important source of information about fashion and “being attractive.”
28. I try to look like sports athletes.

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SATAQ-3: Thompson, van den Berg, Roehrig, Gurada, & Heinberg (2004). Adapted for males by Karazsia & Crowther (2008).

## Appendix B

**Male Body Attitudes Scale (MBAS)**

1. I think I have too little muscle on my body.
2. I think my body should be leaner.
3. I wish my arms were stronger.
4. I feel satisfied with the definition in my abs (i.e., stomach muscles).
5. I think my legs are *not* muscular enough.
6. I think my chest should be broader.
7. I think my shoulders are too narrow.
8. I am concerned that my stomach is too flabby.
9. I think my arms should be larger (i.e., more muscular).
10. I feel dissatisfied with my overall body build.
11. I think my calves should be larger (i.e., more muscular).
12. I wish I were taller.
13. I think I have too much fat on my body.
14. I think my abs are *not* thin enough.
15. I think my back should be larger and more defined.
16. I think my chest should be larger and more defined.
17. I feel satisfied with the definition in my arms.
18. I am satisfied with my height.

*Items excluded in the study.*

19. Has eating sweets, cakes, or other high calorie food made you feel fat or weak?
20. Have you felt excessively large or rounded (i.e., fat)?
21. Have you felt ashamed of your body size or shape?
22. Has seeing your reflection (e.g., in a mirror or window) made you feel badly about your size or shape?
23. Have you been so worried about your body size or shape that you have been feeling that you ought to diet?

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MBAS: Tylka, Bergeron, & Schwartz (2005).

## Appendix C

### Self-Objectification Questionnaire (SOQ)

The questions below identify 10 different body attributes. We would like you to **RANK ORDER** these body attributes from that which has the **GREATEST IMPACT** on your physical self-concept (rank this a '9'), to that which has the **LEAST IMPACT** on your physical self-concept (rank this a '0').

Note: It does not matter how you describe yourself in terms of each attribute. For example, fitness level can have a great impact on your physical self-concept regardless of whether you consider yourself to be physically fit, not physically fit, or any level in between.

**IMPORTANT:** Do not assign the same rank to more than one attribute!

9=greatest impact

8=next greatest impact

.

1=next to least impact

0=least impact

	Rank Order
What rank order do you assign PHYSICAL COORDINATION?	
What rank order do you assign HEALTH?	
What rank order do you assign WEIGHT?	
What rank order do you assign STRENGTH?	
What rank order do you assign SEX APPEAL?	
What rank order do you assign PHYSICAL ATTRACTIVENESS?	
What rank order do you assign ENERGY LEVEL?	
What rank order do you assign FIRM/SCULPTED MUSCLES?	
What rank order do you assign PHYSICAL FITNESS LEVEL?	
What rank order do you assign MEASUREMENTS (e.g., chest, waist, biceps)?	

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SOQ: Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998



## Appendix D

**Depression, Anxiety, and Stress Scale (DASS-21)**

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

*The rating scale is as follows:*

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1. I found it hard to wind down
2. I was aware of dryness of my mouth
3. I couldn't seem to experience any positive feeling at all
4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)
5. I found it difficult to work up the initiative to do things
6. I tended to over-react to situations
7. I experienced trembling (e.g., in the hands)
8. I felt that I was using a lot of nervous energy
9. I was worried about situations in which I might panic and make a fool of myself
10. I felt that I had nothing to look forward to
11. I found myself getting agitated
12. I found it difficult to relax
13. I felt down-hearted and blue
14. I was intolerant of anything that kept me from getting on with what I was doing
15. I felt I was close to panic
16. I was unable to become enthusiastic about anything
17. I felt I wasn't worth much as a person
18. I felt that I was rather touchy
19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)
20. I felt scared without any good reason
21. I felt that life was meaningless

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DASS-21: Lovibond & Lovibond, 1995

## Appendix E Informed Consent Form

### ***Identification of Project:*** **Promoting Healthy Body Image in College Men**

***Purpose of the Research:*** You are invited to participate in this research study. The purpose of the research is to gain a better understanding of men's unique experience of body image. You are eligible to participate in this study because you are a traditional-aged college man.

***Procedures:*** Participation in this study will require approximately two hours of your time. Initially, you will be asked to provide answers concerning your attitudes toward your body and media. You may also be asked to participate in a 90-minute presentation on men's healthy and body image. Lastly, you will be asked to provide additional answers about body image attitudes and general feedback.

***Risks and/or Discomforts:*** There are no known risks or discomforts associated with this research. In the event of problems resulting from participation in the study, psychological treatment is available at the UNL Counseling and Psychological Services, telephone (402) 472-7450.

***Benefits:*** You may find that your participation in this research increases your awareness the various concerns men have about their bodies, healthy exercise and nutrition practices, and general strategies to improve body image.

### ***Confidentiality:***

Any information obtained during this study which could identify you will be kept strictly confidential. The data will be collected online through a password protected website and will be stored in a password protected computer of the principle investigator. No computer IP addresses will be recorded. Your name, email address, and class you participate in may be collected in a file completely separate from your survey responses. Data will only be seen by the investigator during the study and for three years after the study is complete. Your instructor will not see any of your individual responses. The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported as aggregated data.

***Compensation:*** You may receive research credit for participating in this project based on the options provided by your class instructor. If class credit is not available, there will be no compensation for participating in this research. Alternative extra credit non-research option that is equal in time and effort to a research option will also be available. Please discuss this option with your instructor.

***Opportunity to Ask Questions:*** You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may call the investigator at any time via email at [jhenderson@huskers.unl.edu](mailto:jhenderson@huskers.unl.edu), office

phone, (402) 472-3310. If you have questions concerning your rights as a research subject that have not been answered by the investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board, telephone (402) 472-6965.

***Freedom to Withdraw:*** You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or the University of Nebraska. Your decision will not result in any loss or benefits to which you are otherwise entitled.

***Consent, Right to Receive a Copy:*** You are voluntarily making a decision whether or not to participate in this research study. Your pressing the button “I AGREE TO PARTICIPATE” certifies that you have decided to having read and understood the information presented. You may save a copy of this consent form to keep.

***Name and Phone number of investigator(s)***  
***Justin Henderson, MS, Principal Investigator***  
*Office: (402) 472-3310*  
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*Office (402) 472-0573*  
*E-mail: [mscheel2@unl.edu](mailto:mscheel2@unl.edu)*

## Appendix F

**E-Mail Given to Wait-List Control Group Members**

Dear Student,

Thank you for volunteering to participate in the experiment entitled: Promoting Healthy Body Image in Men. As was discussed there was the possibility of you being selected to either attend a program or to fill out more online surveys. You have been selected to fill out another round of surveys.

As was explained at the onset of this project, we need you to fill out one more round of surveys. **If you have already completed the second round of surveys then disregard this e-mail.** Otherwise, please click on the following link <http://www.surveymonkey.com/s/6BRYZVD> and complete the survey questions that follows. If, for some reason, you have decided to decline your continued participation please feel free to e-mail me at [jhenderson@huskers.unl.edu](mailto:jhenderson@huskers.unl.edu) to let me know.

Also, I want to inform you of the opportunity to attend one of the educational presentation on men's health, exercise, and body image at the end of the semester. This presentation will be at the following times:

**Tuesday, April 19th, 7:00pm Teachers College (TEAC) Room 204**  
**Wednesday, April 20th, 7:00pm Teacher's College (TEAC) Room 249**  
**Thursday, April 21st, 3:30pm Teacher's College (TEAC) Room 204**

The presentation will be approximately 1.5 hours long. I think you would find the material interesting; however, you are not required to attend.

You will receive your points through the Experimetrix system once you are finished with the surveys. Please send me an e-mail when you are finished to let me know that you are done and I will credit you the points.

Thank you again for your participation in this study.

Justin Henderson, M.S., Principle Investigator

## Appendix G

**E-mail Given to Treatment Group Members**

Dear Student,

Thank you for agreeing to participate in the study Promoting Healthy Body Image in Men. As was explained at the onset of this project, your participation in a presentation on men's health, exercise, and body image is needed. The presentation will be offered multiple times to ensure ample opportunities for you to attend. The presentation will last approximately 1.5 hours long with a brief survey given at the end. I think you would find the material interesting.

The presentation will be offered at the following dates and times:

**[DATE/TIME/LOCATION inserted here]**

\*Be sure to consult a campus map about Teacher's College location. It is **NOT** the building connected to Canfield Administration Building!

***Please send me an e-mail signing up for the session you plan on attending. This will let me know that you have received the e-mail and plan on attending.***

I ask that you attend only one of these presentations. If you are unable to attend the presentation due to scheduling conflict, please send me an e-mail at [jhenderson@huskers.unl.edu](mailto:jhenderson@huskers.unl.edu). If, for some reason, you have decided to decline your continued participation please feel free to e-mail me at to let me know as well.

Thank you again for your participation in this study.

Justin Henderson, M.S., Principle Investigator

## Appendix H

### Participant Handout

#### Things to Consider:

- Men do experience body image concerns.
- Men's psychological and physical wellness is impacted by social and cultural body ideals that are illustrated in popular media.
- Men's body image distress can emerge as eating disorders, muscle dysmorphia, depression, anxiety, obsessive-compulsive disorder, or a number of sub-clinical behaviors.
- Anabolic steroids and supplements may become increasingly common in attempts to attain body ideals.
- It is important that our society acknowledge that body image concerns are not just a "woman's problem" but a societal concern that needs to be addressed.
- Health and fitness are not synonymous with a lean-muscular body—it is possible to be healthy and fit and not look like this

#### Ways to Improve Your Body Image

- Recognize that media images are *constructed*. They do not represent reality. Instead, most media images are used for marketing and selling products and ideas.
- Know that an entire industry attempts to profit from making you feel bad about who you are and how you look.
- Acknowledge that your body has physiological limits (i.e., natural distribution of weight, height, and size) that are biological.
- Accept your body and the diversity of bodies of others.
- Masculinity *is not* defined by how muscular you are.
- Treat your body with respect, kindness, and compassion.

If you or someone you care about has body image concerns, please consider the following information:

#### Counseling Services:

**UNL's Counseling and Psychological Services:** For information or set-up an appointment please call 402-472-7450.

**UNL's Counseling and School Psychology Clinic:** For information or set-up an appointment please call 402-472-1152.

**UNL's Psychological Consultation Center:** For information or set up an appointment please call 402-4722351

**National Directory** at [www.edreferral.com](http://www.edreferral.com) : Provides information about body image concerns and has a national directory of therapists.

Books on the Subject:

**The Adonis Complex** (2000) by Harrison Pope, Katharine Phillips, and Roberto Olivarida.

**Making Weight: Men's Conflicts with Food, Weight, Shape & Appearance** (2000) by Arnold Andersen, Leigh Cohn, and Thomas Holbrook.

**The Invisible Man: A Self-Help Guide for Men with Eating Disorders, Compulsive Exercise and Bigorexia** (2010) by John Morgan.

Internet Websites:

Men's Body Image:

**Australian Psychological Society**

[http://www.psychology.org.au/publications/inpsych/body\\_image/](http://www.psychology.org.au/publications/inpsych/body_image/)

**InfoPlease**

<http://www.infoplease.com/spot/mbi1.html#axzz0ylrF8ZWR>

Steroids:

**National Institute of Drug Abuse:**

<http://www.nida.nih.gov/ResearchReports/Steroids/AnabolicSteroids.html>

Eating Disorders:

**National Eating Disorders Association:**

<http://www.nationaleatingdisorders.org/information-resources/men-and-boys.php>

**Healthy Place:**

<http://www.healthyplace.com/eating-disorders/main/eating-disorders-men-have-body-image-problems-too/menu-id-58/>